Connecting via Winsock to STN

Welcome to STN International! Enter x:x

FILE 'HOME' ENTERED AT 14:05:20 ON 30 JUL 2009

=> file reg

=>

Uploading C:\Program Files\Stnexp\Queries\3596270.str

chain nodes : 12 13 14 15 17 18 24

10/596,270

```
ring nodes :
1 2 3 4 5 6 7 8 9 10
ring/chain nodes :
16 19
chain bonds :
7-12 13-14 14-15 14-17 14-19 15-16 17-18
ring bonds :
1-2 1-6 1-10 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10
exact/norm bonds :
1-10 7-12 8-9 9-10 14-17 14-19
exact bonds :
13-14 14-15 15-16 17-18
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 6-7 7-8
isolated ring systems :
containing 1 :
```

G1:H,Cy,Ak

Match level: 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 22:Atom 24:CLASS

L3 STRUCTURE UPLOADED

_.

Uploading C:\Program Files\Stnexp\Queries\4596270.str

```
chain nodes :
12 13 14 16 17
ring nodes :
1 2 3 4 5 6 7 8 9 10
ring/chain nodes :
15 18
chain bonds :
7-12 13-18 13-14 13-16 14-15 16-17
ring bonds :
1-2 1-6 1-10 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10
exact/norm bonds :
1-10 7-12 8-9 9-10 13-18 13-16
exact bonds :
13-14 14-15 16-17
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 6-7 7-8
isolated ring systems :
containing 1 :
```

G1:H,Cy,Ak

Match level: 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 10:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 22:Atom

L4 STRUCTURE UPLOADED

=> d 13 L3 HAS NO ANSWERS L3 STR

G1 H, Cy, Ak

Structure attributes must be viewed using STN Express query preparation.

=> d 14 L4 HAS NO ANSWERS L4 STR

Structure attributes must be viewed using STN Express query preparation.

=> s 13 sam SAMPLE SEARCH INITIATED 14:08:38 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 18897 TO ITERATE

10.6% PROCESSED 2000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01 2 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 369707 TO 386173
PROJECTED ANSWERS: 117 TO 637

L5 2 SEA SSS SAM L3

=> d scan

L5 2 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN IN 3-Quinolineethanol, α -(2,4-difluorophenyl)- α -[2-dimethylamino|ethyl]-2-methoxy-3-phenyl-6-(3-pyridinyl)-

(dimethylamino)ethyl]-2-methoxy-β-phenyl-6-(3-pyridinyl)-MF C33 H31 F2 N3 O2

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> s 14 sam

SAMPLE SEARCH INITIATED 14:08:52 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 32448 TO ITERATE

6.2% PROCESSED 2000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 638184 TO 659736
PROJECTED ANSWERS: 83 TO 565

L6 1 SEA SSS SAM L4

=> d scan

L6 1 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN

IN 6-Quinolinemethanol, 2-(dimethylamino)-a-[2-(dimethylamino)ethyl]-

1 ANSWERS

α,4-diphenyl-MF C28 H31 N3 O

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

Page 6

=> s 13 or 14 full FULL SEARCH INITIATED 14:09:03 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 651448 TO ITERATE

96.7% PROCESSED 629923 ITERATIONS

974 ANSWERS

100.0% PROCESSED 651448 ITERATIONS

974 ANSWERS

SEARCH TIME: 00.00.22

T.7 974 SEA SSS FUL L3 OR L4

=> file ca

=> s 17

L.8 67 L7

=> d ibib abs fhitstr 1-67

L8 ANSWER 1 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 151:93317 CA

TITLE: A once-weekly R207910-containing regimen exceeds activity of the standard daily regimen in murine

tuberculosis

AUTHOR(S): Veziris, Nicolas; Ibrahim, Murad; Lounis, Nacer;

Chauffour, Aurelie: Truffot-Pernot, Chantal: Andries,

Koen; Jarlier, Vincent

CORPORATE SOURCE: Laboratoire de Bacteriologie-Hygiene, Universite

Pierre et Marie Curie, Paris, Fr. American Journal of Respiratory and Critical Care

SOURCE: Medicine (2009), 179(1), 75-79

CODEN: AJCMED; ISSN: 1073-449X

PUBLISHER: American Thoracic Society Journal

DOCUMENT TYPE:

LANGUAGE: English

Rationale: R207910 (TMC207 or J) is a member of the diarylquinolines, a new family of antituberculous drugs with high bactericidal activity when given daily in the murine model of tuberculosis. R207910 exhibits a long half-life and thus is a good candidate for once-weekly therapy of tuberculosis. Objectives: To study the activity of once-weekly R207910 monotherapy and combinations of R207910 with other antituberculous agents (isoniazid, rifapentine, moxifloxacin, and pyrazinamide). Methods: The established infection model of murine tuberculosis was used. Colonv counts were determined in the lungs. Measurements and Main Results: Eight weeks of monotherapy reduced the bacillary load by 3 to 4 log10 for rifapentine and by 5 to 6 log10 for R207910 (P < 0.05). The addition of rifapentine and isoniazid or moxifloxacin did not improve the bactericidal activity of R207910 monotherapy. In contrast, the triple combination of R207910 plus rifapentine plus pyrazinamide given once weekly for 2 mo (i.e., a total of only eight administrations), was significantly (P < 0.05) more active than R207910 monotherapy or other R207910 combinations, and led to lung culture negativity in 9 of 10 mice, whereas all lungs were culture pos. in the groups treated with other drug combinations. Moreover, R207910 plus rifapentine plus pyrazinamide given once weekly was more active than the current standard regimen of rifampin plus isoniazid plus pyrazinamide given five times per wk. Conclusions: The unprecedented activity of the triple combination of R207910 plus rifapentine plus pyrazinamide suggests that it may be feasible to develop a fully intermittent once-weekly regimen.

843663-66-1, R207910

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(once-weekly R207910 alone and in combination with rifapentine plus pyrazinamide showed similar high bactericidal activity which exceeded that of standard daily regimen in mouse model of tuberculosis)

RN 843663-66-1 CA CN

3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxyα-1-naphthalenyl-β-phenyl-, (αS, βR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT: 19

THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 151:23548 CA

TITLE: ATP synthase and the actions of inhibitors utilized to

study its roles in human health, disease, and other

scientific areas

Hong, Sangjin; Pedersen, Peter L. AUTHOR(S):

Department of Biological Chemistry, School of CORPORATE SOURCE:

Medicine, Johns Hopkins University, Baltimore, MD,

21205-2185, USA

SOURCE: Microbiology and Molecular Biology Reviews (2008),

72(4), 590-641

CODEN: MMBRF7; ISSN: 1092-2172

American Society for Microbiology

PUBLISHER: DOCUMENT TYPE: Journal: General Review

LANGUAGE: English

A review. ATP synthase, a double-motor enzyme, plays various roles in the cell, participating not only in ATP synthesis but in ATP hydrolysis-dependent processes and in the regulation of a proton gradient across some membrane-dependent systems. Recent studies of ATP synthase as a potential mol. target for the treatment of some human diseases have displayed promising results, and this enzyme is now emerging as an attractive mol. target for the development of new therapies for a variety of diseases. Significantly, ATP synthase, because of its complex structure, is inhibited by a number of different inhibitors and provides

diverse possibilities in the development of new ATP synthase-directed agents. In this review, we classify over 250 natural and synthetic inhibitors of ATP synthase reported to date and present their inhibitory sites and their known or proposed modes of action. The rich source of ATP synthase inhibitors and their known or purported sites of action presented in this review should provide valuable insights into their applications as potential scaffolds for new therapeutics for human and animal diseases as well as for the discovery of new pesticides and herbicides to help protect the world's food supply. Finally, as ATP synthase is now known to consist of two unique nanomotors involved in making ATP from ADP and P1, the information provided in this review may greatly assist those investigators entering the emerging field of nanotechnol.

IT 843663-66-1, R207910

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(ATP synthase inhibitor R207910 as antimycobacterial agent is effective for treatment of tuberculosis in human and animal)

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT:

THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT:

ACCESSION NUMBER:

454 THERE ARE 454 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

.8 ANSWER 3 OF 67 CA COPYRIGHT 2009 ACS on STN

150:505896 CA

TITLE: New anti-tuberculosis drugs in clinical trials with

novel mechanisms of action

AUTHOR(S): Rivers, Emma C.; Mancera, Ricardo L.
CORPORATE SOURCE: The Open University, Milton Keynes, MK7 6AA, UK

Drug Discovery Today (2008), 13(23/24), 1090-1098

CODEN: DDTOFS; ISSN: 1359-6446

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. Tuberculosis is a major health problem worldwide, with approx.

1.7 million people dying annually from the disease. The long current drug regimen, the emergence of drug resistant strains and HIV co-infection have resulted in a resurgence in research efforts to address the urgent need for new anti-tuberculosis drugs. A number of new potential anti-tuberculosis

SOURCE:

drug candidates with novel modes of action have entered clin. trials in recent years. These agents are most likely to be effective against resistant strains. We provide a concise review of their structure-activity relationships, in vitro and in vivo activity,

pharmacokinetics, mechanism of action and combination regimens. IT 843663-66-1, TMC207

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USSS (USes) (antituberculosis drug TMC207 with novel mechanism of action and in combination with pyrazinamide showed activity against drug-resistant and susceptible Mycobacterium tuberculosis in patient with tuberculosis.

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 150:437841 CA TITLE: Selectivity of T

TITLE: Selectivity of TMC207 towards mycobacterial ATP synthase compared with that towards the eukaryotic

homologue

AUTHOR(S): Haagsma, Anna C.; Abdillahi-Ibrahim, Rooda; Wagner,

Marijke J.; Krab, Klaas; Vergauwen, Karen; Guillemont, Jerome; Andries, Koen; Lill, Holger; Koul, Anil; Bald,

Dirk

CORPORATE SOURCE: Department of Molecular Cell Biology, Faculty of Earth and Life Sciences, VU University Amsterdam, Amsterdam,

1081 HV, Neth.
SOURCE: Antimicrobial Agents and Chemotherapy (2009), 53(3),

1290-1292

CODEN: AMACCQ; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal LANGUAGE: English

AB The diarylquinoline TMC207 kills Mycobacterium tuberculosis by specifically inhibiting ATP synthase. We show here that human mitochondrial ATP synthase (50% inhibitory concentration [IC50] of >200 μΜ)

displayed more than 20,000-fold lower sensitivity for TMC207 compared to

that of mycobacterial ATP synthase (IC50 of 10 nM). Also, oxygen consumption in mouse liver and bovine heart mitochondria showed very low sensitivity for TMC207. These results suggest that TMC207 may not elicit ATP synthesis-related toxicity in mammalian cells. ATP synthase, although highly conserved between prokaryotes and eukaryotes, may still qualify as an attractive antibiotic target.

843663-66-1, TMC207

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (ATP synthase inhibition by; selectivity of TMC207 towards mycobacterial ATP synthase compared with that towards human, mouse, or bovine homolog)

843663-66-1 CA RN CN

3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxyα-1-naphthalenyl-β-phenyl-, (αS, βR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 5 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 150:413115 CA

TITLE: Structure-Activity Relationships for a Series of

Quinoline-Based Compounds Active against Replicating and Nonreplicating Mycobacterium tuberculosis

AUTHOR(S): Lilienkampf, Annamaria; Mao, Jialin; Wan, Baojie; Wang, Yuehong; Franzblau, Scott G.; Kozikowski, Alan

Р.

CORPORATE SOURCE: Drug Discovery Program, Department of Medicinal

Chemistry and Pharmacognosy, College of Pharmacy, University of Illinois at Chicago, Chicago, IL, 60612,

USA

SOURCE: Journal of Medicinal Chemistry (2009), 52(7),

2109-2118

CODEN: JMCMAR: ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

Tuberculosis (TB) remains as a global pandemic that is aggravated by a lack of health care, the spread of HIV, and the emergence of multidrug-resistant TB (MDR-TB) and extensively drug-resistant TB (XDR-TB) strains. New anti-TB drugs are urgently required to shorten the long 6-12 mo treatment regimen and to battle drug-resistant Mtb strains. We have identified several potent quinoline-based anti-TB compds., bearing an isoxazole containing side-chain. The most potent compds., 7g and 13,

RN CN exhibited submicromolar activity against the replicating bacteria (R-TB), with min. inhibitory concns. (MICs) of 0.77 and 0.95 μM, resp. In general, these compds. also had micromolar activity against the nonreplicating persistent bacteria (NRP-TB) and did not show toxicity on Vero cells up to 128 μM concentration Compds. 7g and 13 were shown to retain their anti-TB activity against rifampin, isoniazid, and streptomycin resistant Mtb strains. The results suggest that quinoline-isoxazole-based anti-TB compds, are promising leads for new TB drug development.

843663-66-1, Tmc207

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (SAR and preparation of quinoline compds. active against M. tuberculosis) 843663-66-1 CA

3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxyα-1-naphthalenyl-β-phenyl-, (αS, βR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 6 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 150:344009 CA

TITLE: Extracting metabolite ions out of a matrix background

by combined mass defect, neutral loss and isotope

AUTHOR(S): Cuvckens, Filip; Hurkmans, Rob; Castro-Perez, Jose M.; Leclercq, Laurent; Mortishire-Smith, Russell J.

CORPORATE SOURCE: Global Preclinical Development, Johnson and Johnson Pharmaceutical R and D, Beerse, 2340, Belg.

SOURCE: Rapid Communications in Mass Spectrometry (2009),

23(2), 327-332 CODEN: RCMSEF; ISSN: 0951-4198

Mass defect, neutral loss and isotope filtration techniques were applied

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

to electrospray ionization mass spectrometry (ESI-MS) data obtained for in vivo and in vitro samples of drug metabolism studies. A combination of these post-acquisition processing techniques was shown to be more powerful than the use of one of these tools alone for the detection in complex matrixes of metabolites of candidate drugs with a characteristic isotope pattern (e.g. containing bromine, chlorine, or a high proportion of radiolabeled drug (12C/14C)) or characteristic neutral losses. In combination with 'all-in-one' data acquisition this methodol. is able to perform software-driven constant neutral loss scanning for an unlimited number of mass

AB

differences at any time after anal. Highly selective MS chromatograms were obtained with excellent correlation with their corresponding radiochromatograms.

IT 843663-66-1, TMC207

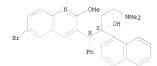
RL: ANT (Analyte); PKT (Pharmacokinetics); ANST (Analytical study); BIOL (Biological study)

(extracting metabolite ions out of matrix background by combined mass defect, neutral loss and isotope filtration)

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD
(2 CITINGS)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 7 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 150:325707 CA

TITLE: Prevention of drug carryover effects in studies

assessing antimycobacterial efficacy of TMC207
AUTHOR(S): Lounis, Nacer, Gevers, Tom, Van Den Berg, Joke;
Verhæeghe, Tom; van Heeswijk, Rolf; Andries, Koen

CORPORATE SOURCE: Tibotec BVBA, Johnson and Johnson, Beerse, 2340, Belg. SOURCE: Journal of Clinical Microbiology (2008), 46(7),

2212-2215

CODEN: JCMIDW; ISSN: 0095-1137

PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal

LANGUAGE: English

AB The levels of TMC207 (R207910) that can be reached in mouse organs and the sputa of treated patients easily exceed the MIC of the compound and can therefore interfere with in vitro bacterial titrns. We studied the usefulness of protein-enriched media for the prevention of such drug carryover effects. The average MIC of Mycobacterium tuberculosis was

determined on

three different media: unsupplemented 7H11 agar (MIC = 0.03 $\mu g/mL$), 7H11 agar supplemented with 5% bovine serum albumin (BSA) MIC = 1 $\mu g/mL$), and Lowenstein-Jensen medium (MIC = 14.33 $\mu g/mL$). In a second stage of the study, the maximal noninhibitory concns. (MNICs) of TMC207 were determined by adding TMC207 to the bacterial inoculum rather than to the culture medium. These MNICs were 0.97 $\mu g/mL$ for 7H11 agar, 32.33 $\mu g/mL$ for 2H11 agar with 5% BSA, and 96.33 $\mu g/mL$ for

Lowenstein-Jensen medium. Both protein-enriched media were able to prevent drug carryover effects, but the use of 7H11 medium supplemented with 5% BSA is preferred for practical reasons.

843663-66-1, TMC207

RL: BSU (Biological study, unclassified); BIOL (Biological study) (prevention of drug carryover effects in studies assessing antimycobacterial efficacy of TMC207)

843663-66-1 CA

CN 3-Ouinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD 1

(1 CITINGS)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 8 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 150:320527 CA

TITLE: A roadmap for drug discovery and its translation to small molecule agents in clinical development for

tuberculosis treatment

AUTHOR(S): Showalter, H. D. Hollis; Denny, William A.

CORPORATE SOURCE: Department of Medicinal Chemistry, University of Michigan, Ann Arbor, MI, 48109-1965, USA

SOURCE: Tuberculosis (Oxford, United Kingdom) (2008),

88 (Suppl. 1), S3-S17

CODEN: TUBECU: ISSN: 1472-9792

PUBLISHER: Elsevier Ltd. Journal; General Review

DOCUMENT TYPE: LANGUAGE:

English AB A review. Drug discovery and development, from an initial disease treatment concept to a new drug application (NDA), is a complex, lengthy and expensive process. In this review we discuss the key stages of drug discovery and early development, including target identification and validation, assay development and screening, confirmed hits to leads, lead optimization, and progressing development candidates to an investigational new drug (IND) filing. We also provide particular examples of how this process is beginning to assist in the development of small mol. treatments for tuberculosis, by summarizing the status of the clin. development of several newer classes of drugs. These include the fluoroquinolones, oxazolidinones, diarylquinolines, and nitroimidazo-oxazoles and -oxazines.

843663-66-1, TMC207 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(roadmap for drug discovery and its translation to small mol. agents in clin, development for tuberculosis treatment)

843663-66-1 CA

3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxyα-1-naphthalenyl-β-phenyl-, (αS,βR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT 150:159357 CA

ANSWER 9 OF 67 CA COPYRIGHT 2009 ACS on STN

121

ACCESSION NUMBER:

REFERENCE COUNT:

TITLE:

Design, synthesis and pharmacological evaluation of mefloquine-based ligands as novel antituberculosis agents

THERE ARE 121 CITED REFERENCES AVAILABLE FOR

AUTHOR(S): Mao, Jialin; Wang, Yuehong; Wan, Baojie; Kozikowski, Alan P.; Franzblau, Scott G. CORPORATE SOURCE:

Institute for Tuberculosis Research University of

Illinois, Chicago, USA

SOURCE: CACS Communications (2007), (Fall), 25-26 CODEN: CCAOBD; ISSN: 1939-4004

URL: http://www.cacshq.org/CACS_Fall_2007-FINAL.pdf

PUBLISHER: Chinese-American Chemical Society DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

Mefloquine-based hydrazone analogs were designed and synthesized, and their activity against both replicating and non-replicating persistent tuberculosis (TB) was evaluated using the microplate Alamar Blue assay (MABA) and low oxygen recovery assay (LORA), resp. Clear anti-TB structure-activity relationships (SARs) were observed In addition, the cytotoxicity data toward Vero cells (IC50) and the desired selectivity indexes provided useful information in directing the synthesis. Results confirmed the importance of having a quinoline ring present as the main scaffold, as well as two trifluoromethyl groups to maintain anti-TB activity. For substitution at the remote nitrogen of the piperazine ring, various aliphatic and unsatd, chains are tolerated and a basic terminus is preferred.

843663-66-1, R207910

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(mefloquine based analog was more active in vero cells and showed reduced mammalian cell toxicity and central nervous system side effects than mefloquine)

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

L8 ANSWER 10 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:508704 CA

TITLE: Diarylquinolines Are Bactericidal for Dormant

Mycobacteria as a Result of Disturbed ATP Homeostasis
AUTHOR(S): Koul, Anil; Vranckx, Luc; Dendouga, Najoua; Balemans,

Wendy; Van den Wyngaert, Ilse; Vergauwen, Karen; Goehlmann, Hinrich W. H.; Willebrords, Rudy; Poncelet,

Alain; Guillemont, Jerome; Bald, Dirk; Andries, Koen
CORPORATE SOURCE: Department of Antimicrobial Research, Johnson &

Johnson, Beerse, B-2340, Belg.

Journal of Biological Chemistry (2008), 283(37),

25273-25280

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

An estimated one-third of the world population is latently infected with Mycobacterium tuberculosis. These nonreplicating, dormant bacilli are tolerant to conventional antituberculosis drugs, such as isoniazid. We recently identified diarylquinoline R207910 (also called TMC207) as an inhibitor of ATP synthase with a remarkable activity against replicating mycobacteria. In the present study, we show that R207910 kills dormant bacilli as effectively as aerobically grown bacilli with the same target specificity. Despite a transcriptional down-regulation of the ATP synthase operon and significantly lower cellular ATP levels, we show that dormant mycobacteria do possess residual ATP synthase enzymic activity. This activity is blocked by nanomolar concns. of R207910, thereby further reducing ATP levels and causing a pronounced bactericidal effect. We conclude that this residual ATP synthase activity is indispensable for the survival of dormant mycobacteria, making it a promising drug target to tackle dormant infections. The unique dual bactericidal activity of diarylquinolines on dormant as well as replicating bacterial subpopulations distinguishes them entirely from the current anti-tuberculosis drugs and underlines the potential of R207910 to shorten tuberculosis treatment.

IT 843663-66-1D, R207910, analogs

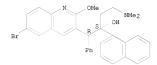
SOURCE:

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (diarylquinolines are bactericidal for dormant mycobacteria as a result of disturbed ATP homeostasis)

843663-66-1 CA RN

3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxyα-1-naphthalenvl-β-phenvl-, (αS, βR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



OS.CITING REF COUNT: THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 11 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:

TITLE: The protonmotive force is required for maintaining ATP homeostasis and viability of hypoxic, nonreplicating

Mycobacterium tuberculosis

149:466203 CA

Rao, Srinivasa P. S.; Alonso, Sylvie; Rand, Lucinda; AUTHOR(S): Dick, Thomas; Pethe, Kevin

CORPORATE SOURCE: Novartis Institute for Tropical Diseases, Chromos,

138670, Singapore

SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2008), 105(33), 11945-11950

CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal LANGUAGE: English AB

The persistence of Mycobacterium tuberculosis despite prolonged chemotherapy represents a major obstacle for the control of tuberculosis. The mechanisms used by Mtb to persist in a quiescent state are largely unknown. Chemical genetic and genetic approaches were used here to study the physiol. of hypoxic nonreplicating mycobacteria. We found that the intracellular concentration of ATP is five to six times lower in hypoxic nonreplicating Mtb cells compared with aerobic replicating bacteria, making them exquisitely sensitive to any further depletion. We show that de novo ATP synthesis is essential for the viability of hypoxic nonreplicating mycobacteria, requiring the cytoplasmic membrane to be fully energized. In addition, the anaerobic electron transport chain was demonstrated to be necessary for the generation of the protonmotive force. Surprisingly, the alternate ndh-2, but not -1, was shown to be the electron donor to the electron transport chain and to be essential to replenish the [NAD+] pool in hypoxic nonreplicating Mtb. Finally, we

describe here the high bactericidal activity of the F0F1 ATP synthase inhibitor R207910 on hypoxic nonreplicating bacteria, supporting the potential of this drug candidate for shortening the time of tuberculosis therapy.

T 843663-66-1, R207910

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (high bactericidal activity of FOFI ATP synthase inhibitor R207910 on hypoxic nonreplicating bacteria)

N 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

(5 CITINGS)

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 12 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:439060 CA

TITLE: Handbook of anti-tuberculosis agents

AUTHOR(S): Anon.

CORPORATE SOURCE: Global Alliance for TB Drug Development, New York, NY,

10004, USA

SOURCE: Tuberculosis (Oxford, United Kingdom) (2008), 88(2),

85-170

CODEN: TUBECU; ISSN: 1472-9792

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review on information on all approved drugs used to treat tuberculosis (TB), on drugs in clin. development for TB, and on some approved drugs being investigated for potential use in TB.

IT 843663-66-1, TMC-207

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(TMC-207 may useful as antituberculosis agent for potential use in patient with tuberculosis)

843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX

NAME)

REFERENCE COUNT:

Absolute stereochemistry. Rotation (-).

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 13 OF 67 CA COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 149:369690 CA

TITLE: Impact of the interaction of R207910 with rifampin on the treatment of tuberculosis studied in the mouse

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

model

AUTHOR(S): Lounis, Nacer; Gevers, Tom; Van Den Berg, Joke;

Andries, Koen

CORPORATE SOURCE: Department of Antimicrobial Research, Tibotec BVBA,

Johnson and Johnson, Beerse, 2340, Belg.
SOURCE: Antimicrobial Agents and Chemotherapy (2008), 52(10),

3568-3572

CODEN: AMACCQ; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology DOCUMENT TYPE: Journal

DOCUMENT TYPE: Journal LANGUAGE: English

New drugs are needed to shorten the duration of tuberculosis treatment. R207910, a diarylquinoline, is very active against Mycobacterium tuberculosis both in vitro and in mice. In healthy volunteers, the coadministration of R207910 and rifampin induced the increased metabolism of R207910, resulting in a 50% reduction in the level or R207910 exposure. We assessed the impact of reducing the dose of R207910 on its efficacy when R207910 was combined with a background regimen of isoniazid, rifampin, and pyrazinamide. Addition of 25 mg/kg of body weight or 12.5 mg/kg R207910 to the background regimen resulted in faster bacterial clearance and culture negativity. The difference in efficacy between the two doses was not statistically significant. The minimal bactericidal dose of R207910 when it was tested as part of the combination was identical to that when it was tested as monotherapy. Because of the drug-drug interaction in humans, the activity of R207910 in humans could be less than that expected from studies with mice. Our data from the mouse model demonstrate that R207910 has significant activity, even when its exposure is reduced by 50% and when it is added to a strong background regimen of isoniazid, rifampin, and pyrazinamide. In killing kinetic studies, the bactericidal effect of R207910 in mice was modest during the first week of treatment, but it increased in the following 3 wk, while the bactericidal activity of isoniazid was limited to the first week of treatment. 843663-66-1, R207910

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (impact of interaction of R207910 with rifampin on treatment of

(impact of interaction of R207910 with rifampin on treatment of tuberculosis studied in mouse model)

843663-66-1 CA RN

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxyα-1-naphthalenv1-β-phenv1-, (αS, βR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD 3 (3 CITINGS)

THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 15 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 14 OF 67 CA COPYRIGHT 2009 ACS on STN 149:238540 CA

ACCESSION NUMBER:

Novel treatment strategies for TB patients with HIV

TITLE: co-infection

AUTHOR(S): Ginsberg, Ann M.

CORPORATE SOURCE: Clinical Development, Global Alliance for Tuberculosis

Drug Development, New York, NY, 10004, USA

Handbook of Tuberculosis: Clinics, Diagnostics, SOURCE: Therapy and Epidemiology (2008), 213-225. Editor(s):

Kaufmann, Stefan H. E.; van Helden, Paul. Wiley-VCH

Verlag GmbH & Co. KGaA: Weinheim, Germany.

CODEN: 69KWLS; ISBN: 978-3-527-31888-9

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English

A review on the goals and approaches for improving tuberculosis treatment of patients co-infected with HIV, as well as the drugs in clin.

development for a TB indication and their interactions with the cytochrome P 450 enzymes.

843663-66-1, TMC207

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(TMC207 in combination with antiretroviral agent showed no cytochrome P 450 interaction and may be effective in treating tuberculosis patient with human immunodeficiency virus co-infection)

843663-66-1 CA RN

3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenvl- β -phenvl-, $(\alpha S, \beta R)$ - (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

REFERENCE COUNT:

9 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 15 OF 67 CA COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 149:215199 CA

TITLE: Early bactericidal activity and pharmacokinetics of the diarylquinoline TMC207 in treatment of pulmonary tuberculosis

AUTHOR(S): Rustomiee, R.; Diacon, A. H.; Allen, J.; Venter, A.; Reddy, C.; Patientia, R. F.; Mthiyane, T. C. P.; De

Marez, T.; van Heeswijk, R.; Kerstens, R.; Koul, A.; De Beule, K.; Donald, P. R.; McNeeley, D. F. Unit for Clinical and Biomedical Tuberculosis CORPORATE SOURCE:

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS

Research, Medical Research Council, Durban, S. Afr. SOURCE: Antimicrobial Agents and Chemotherapy (2008), 52(8), 2831-2835

CODEN: AMACCQ; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English Tibotec Medicinal Compound 207 (TMC207) is a novel diarylquinoline with a unique mode of action that targets mycobacterial ATP synthase. TMC207 exhibits high in vitro activity against mycobacterial strains either susceptible or resistant to all first-line and many second-line drugs, including fluoroquinolones, and has shown exceptional in vivo activity against several mycobacterial species in different animal models. In this early bactericidal activity study, 75 treatment-naive patients with smear-pos. pulmonary tuberculosis were randomized to once-daily oral TMC207 (25 mg, 100 mg, or 400 mg), 600 mg rifampin (RIF), or 300 mg isoniazid (INH) for 7 days. Sixteen-hour overnight sputum collected at baseline and on each treatment day was plated in serial dilns. on selective agar plates. The bactericidal activity was expressed as the log10 decrease in CFU/mL sputum/day. Pharmacokinetic sampling was performed on day 7 of TMC207 administration up to 24 h postdose. The decreases in log10 CFU counts (± standard deviation) from baseline to day 7 were 0.04 \pm 0.46 for 25 mg TMC207 (n = 14), 0.26 \pm 0.64 for 100 mg TMC207 (n = 14), 0.77 \pm 0.58 for 400 mg TMC207 (n = 14), 1.88 \pm 0.74 for INH (n = 11), and 1.70 \pm 0.71 for RIF (n = 14). Significant bactericidal activity of 400 mg TMC207 was observed from day 4 onward and was similar in magnitude to those of INH and RIF over the same period. The pharmacokinetics of TMC207 were linear across the dose range. In summary, TMC207 demonstrated bactericidal activity with a delayed onset and was well tolerated, and no study drug-related serious adverse events occurred. 843663-66-1, TMC207

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological

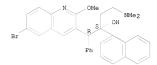
activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(early bactericidal activity and pharmacokinetics of diarylquinoline TMC207 in treatment of pulmonary tuberculosis)

RN 843663-66-1 CA

N 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, $(\alpha S, \beta R)$ - (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 16 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:98079 CA

TITLE: ATP synthases: bioinformatic based insights into how their electrochemically driven motor comprised of

subunits a and c might serve as a drug target

AUTHOR(S): Maeda, Masatomo

CORPORATE SOURCE: Department of Molecular Biology, School of Pharmaceutical Sciences, Iwate Medical University,

Shiwa, Iwate, 028-3694, Japan

Journal of Bioenergetics and Biomembranes (2008),

40(2), 117-121

CODEN: JBBID4; ISSN: 0145-479X

PUBLISHER: Springer

DOCUMENT TYPE: Journal
LANGUAGE: English

AB FOFI-ATP synthases, widely distributed in bacteria, eukaryotic mitochondria, and chloroplasts, are highly conserved multi-subunit complexes. Although the conserved acidic residue in the transmembrane helix of the c subunit functions in H+ transport, the surrounding residues differ among species. Such divergence could lead to different regulatory modes since pH-dependent H+ transport has been demonstrated in Escherichia coli with a c subunit carrying an addnl. acidic residue in the helix. There is further divergence in the number of c subunits that form the ring structure which is determined by the higher ordered structure. Recently, it was suggested that certain compds. such as R 207910 and mefloquine recognize the a and c subunits of pathogenic bacterial FO sector. Since

recognize the a and c subunits of pathogenic bacterial FV sector. Since there may be structural divergence even in well-conserved ATP synthases, the c subunit-ring as well as the a subunit in FO could be targets for drugs for specific bacterial species.

IT 843663-66-1, R 207910

SOURCE:

RL: BSU (Biological study, unclassified); BIOL (Biological study) (bioinformatic based insights into how the ATP synthase electrochem. driven motor comprised of subunits a and c might serve as a drug target for pathogenic bacteria)

843663-66-1 CA RN

3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxyα-1-naphthalenvl-β-phenvl-, (αS, βR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 17 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:69158 CA

TITLE: Medications for extensively drug-resistant

tuberculosis: back to the future?

Ashby, Charles R., Jr.; Jodlowski, Tomasz Z.; Sym, AUTHOR(S): Donna

ST. John's University College of Pharmacy and Allied CORPORATE SOURCE:

Health Professions, Queens, NY, USA

SOURCE: Journal of Pharmacy Technology (2008), 24(2), 82-95

CODEN: JPTEEB; ISSN: 8755-1225

PUBLISHER: Harvey Whitney Books Co. DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

A review. Objective: To reexamine the existing medications for the potential treatment of extensively drug-resistant tuberculosis (XDR-TB), based on susceptibility data, and to identify potential future medications from the literature. Data Sources: Relevant information was identified through a search of MEDLINE (1966-Nov. 2007), PubMed (1955-Nov. 2007), American Search Premier (1975-Nov. 2007), International Pharmaceutical (1960-Nov. 2007), Science Citation Index Expanded (1996-Nov. 2007), Cochrane Databases (publications archived until Nov. 2007), and various tertiary sources as listed in the refs., using the terms extensively drug-resistant tuberculosis (XDR-TB), ethambutol, pyrazinamide, para-aminosalicylic acid, cycloserine, linezolid, diarylquinoline, nitroimidazopyran, fluoroquinolones, β-lactams, new treatments, and ethionamide alone or in combination regimens. Study Selection and Data Extraction: After identification of the relevant information, the data presented in this article were selected based on clin, relevance and value of information. Data Synthesis: Based on susceptibility data, pyrazinamide, ethambutol, para-aminosalicylic acid, cycloserine, and ethionamide may be used for the treatment of tuberculosis. However, due to the emergence of XDR-TB, many of these agents are no longer successful

treatment regimens. We have found limited data supporting potential future use of β -lactams, clarithromycin, and linezolid in resistant TB infections. TMC207, nitroimidazopyran, and SQ109 compds. may also prove to be viable options in the near future for treatment of tuberculosis, especially in cases with resistance to mainstay medications. Conclusions: Extensively resistant tuberculosis appears to be a potentially catastrophic disease if allowed to spread. Due to its resistance profile, very few potentially effective agents are available, calling attention to this growing problem.

843663-66-1, TMC207

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(TMC207 can be viable option for treatment of patient with extensively drug-resistant tuberculosis)

843663-66-1 CA RN CN

3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

189 THERE ARE 189 CITED REFERENCES AVAILABLE FOR REFERENCE COUNT: THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 18 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:53892 CA

Preparation of aminohydroxyalkylquinolines as TITLE:

antibacterials.

INVENTOR(S): Guillemont, Jerome Emile Georges; Andries, Koenraad

Jozef Lodewijk Marcel; Koul, Anil Janssen Pharmaceutica N.V., Belg.

PATENT ASSIGNEE(S): SOURCE:

PCT Int. Appl., 64pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE			
WO 2008068270	A1 20080612	2 WO 2007-EP63316	20071204			
W: AE, AG, A	L, AM, AT, AU, AZ,	BA, BB, BG, BH, BR, BW,	BY, BZ, CA,			
CH, CN, C	O, CR, CU, CZ, DE,	DK, DM, DO, DZ, EC, EE,	EG, ES, FI,			
GB, GD, G	E, GH, GM, GT, HN,	HR, HU, ID, IL, IN, IS,	JP, KE, KG,			
KM, KN, K	P, KR, KZ, LA, LC,	LK, LR, LS, LT, LU, LY,	MA, MD, ME,			

GT

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MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,
             PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN,
             TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
             GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM
     IN 2009MN01241
                                            IN 2009-MN1241
                          Α
                                20090717
                                                                   20090701
PRIORITY APPLN. INFO.:
                                            EP 2006-125529
                                                                A 20061206
                                            WO 2007-EP63316
                                                                W 20071204
OTHER SOURCE(S):
                        MARPAT 149:53892
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к3 он

Title compds. [I, II; p = 1-4; q = 0-4; R1 = H, cyano, CHO, CO2H, halo, AB alkyl, alkenyl, alkynyl OH, amino, (substituted) aralkyl, arylcarbonyl, heterocyclyl, etc.; R2 = H, OH, SH, alkoxy, (substituted) aryl, aryloxy, pyrrolidino, piperidinyl, morpholinyl, piperazinyl, etc.; R3 = alkyl, (substituted) aralkyl, aryloxyalkyl aryl, diaryl heterocyclyl, 4-phenylcarbonylpiperidinyl, etc.; R4, R5 = H, alkyl, alkoxyalkyl, (substituted) aralkyl, aryl, heterocyclyl, C(:NH)NH2, etc.; NR4R5 = pyrrolidino, piperidino, piperazino, morpholino, etc.; R7 = H, halo, alkyl, (substituted) aryl, heterocyclyl; R8 = H, alkyl; R9 = O; R8R9 = CH:CHN], were prepared Thus, a mixture prepared from BuLi and 2,2,6,6-tetramethylpiperidine in THF at -70° was treated with 6-bromo-2-methoxyquinoline (preparation given) in THF and then with

1-(5-dimethylaminopentancyl)naphthalene in THF to give 20% title compound (III). III showed an IC90 value of 7.60 $\mu g/mL$ against Staphylococcus aureus ATCC 29213.

IT 1032187-20-4P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of aminohydroxyalkylquinolines as antibacterials)

RN 1032187-20-4 CA

CN 3-Quinolinemethanol, 6-bromo-α-[3-(dimethylamino)propyl]-2-methoxy-α-1-naphthalenyl- (CA INDEX NAME)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 19 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:53890 CA

TITLE: Antibacterial quinoline derivatives and their

preparation and use in the treatment of bacterial infection

INVENTOR(S): Guillemont

Guillemont, Jerome Emile Georges; Motte, Magali Madeleine Simone; Andries, Koenraad Jozef Lodewijk

Marcel; Koul, Anil

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.

SOURCE: PCT Int. Appl., 69pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	PATENT NO.						KIND DATE			APPLICATION NO.						DATE			
						-													
WO	TO 2008068269			A1		20080612		1	WO 2	007-	EP63:	315	20071204						
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,		
		CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FI,		
		GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,		
		KM,	KN,	KP,	KR,	KZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,		
		MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,		
		PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	TJ,	TM,	TN,		
		TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	zw						
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,		
		IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,		
		BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,		
		GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,		
		BY,	KG,	KZ,	MD,	RU,	TJ,	TM											
PRIORITY	APP	LN.	INFO	. :					1	EP 2006-125521					A 20061206				

OTHER SOURCE(S):

MARPAT 149:53890

$$(R^1)_{m} \xrightarrow[R^8]{R^7} R^6 \xrightarrow[N]{QH} Z \xrightarrow[n]{R^4} N \xrightarrow[R^5]{N} R^5$$

AR The invention relates to substituted quinoline derivs. according to the general formula I or II: including any stereochem. isomeric form thereof, a pharmaceutically acceptable salt thereof, a N-oxide form thereof or a solvate thereof. The claimed compds. are useful for the treatment of a bacterial infection. Also claimed is a composition comprising a pharmaceutically acceptable carrier and, as active ingredient, a therapeutically effective amount of the claimed compds., the use of the claimed compds, or compns, for the manufacture of a medicament for the treatment of a bacterial infection and a process for preparing the claimed compds. Compds. of formula I and II wherein m is 1, 2, 3, and 4; n is 0, 1, 2, 3 and 4; R1 is H, CN, CHO, carboxyl, halo, (halo)alkyl, C2-6 alkenyl, C2-6 alkynyl, etc.; R2 is H, alkyloxy, aryl, aryloxy, OH, mercapto, etc.; R3 is alkyl, arylalkyl, aryloxyalkyl, arylalkyloxylakyl, aryl, etc.; R4 and R5 are independently H, alkyl, alkoxyalkyl, arylalkyl, (di)alkylamino, etc.; NRR5aken together to form pyrrolidino piperidino, piperazino, morpholino, thiomorpholino, etc.; R6 is (un) substituted Ph, (un) substituted naphthyl, (un) substituted acenaphthyl (un) substituted tetrahydronaphthyl, and (un)substituted (mono/bi)cyclic heterocycle; R7 is H, halo, alkyl, aryl and (un)substituted (mono/bi)cyclic heterocycle; R8 is H and alkyl; R9 is oxo; R8R9 taken together to form CH=CH-N=; Z is S and NH and derivs.; and their stereochem. isomeric forms, N-oxides, pharmaceutically acceptable salts, and solvates thereof, are claimed. Example compound III was prepared by a general procedure (procedure given). All the invention compds. were evaluated for their antibacterial activity

II

(data given).

1032015-83-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of quinoline derivs. as antibacterial agents useful in the treatment of bacterial infection)

RN 1032015-83-0 CA CN

3-Ouinolineethanol, 6-bromo-α-[[[2- $(dimethylamino)ethyl](phenylmethyl)amino]methyl]-2-methoxy-<math>\alpha$, β diphenyl-, (aR, BR)-rel- (CA INDEX NAME)

Relative stereochemistry.

REFERENCE COUNT: THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 20 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:53889 CA TITLE: Antibacterial quinoline derivatives and their

preparation, and use in the treatment of bacterial

infection

Guillemont, Jerome Emile Georges; Dorange, Ismet; INVENTOR(S): Lancois, David Francis Alain; Villalgordo-Soto, Jose Manuel; Simonnet, Yvan Rene Ferdinand; Motte, Magali

Madeleine Simone; Andries, Koenraad Jozef Lodewijk Marcel; Koul, Anil

PATENT ASSIGNEE(S):

Janssen Pharmaceutica N.V., Belg. SOURCE: PCT Int. Appl., 134pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATEN	T I	10.			KIND DATE					APPL	ICAT	DATE					
					-												
WO 20	WO 2008068272						A2 20080612				007-	20071204					
WO 20	WO 2008068272					A3 20080724											
W	7:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,
		CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FI,
		GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,
		KM,	KN,	KP,	KR,	ΚZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,
		MG,	MK,	MN,	MW,	MX,	MY,	ΜZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,
		PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	TJ,	TM,	TN,
		TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	zw				
F	: WS	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	IE,
		IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,

BJ, CP, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

CA 2668558 A1 20080612 CA 2007-2668558 20071204
IN 2009MN01242 A 20090717 IN 2009-MN1242 20090701
PRIORITY APPLN. INFO.: EP 2006-125545 A 20061206
W0 2007-EP63319 W 20071204

OTHER SOURCE(S): MARPAT 149:53889

GI

AB The invention relates to substituted quinoline derivs. according to the general formula I and II: including any stereochem. isomeric form thereof, a pharmaceutically acceptable salt thereof, a N-oxide form thereof or a solvate thereof. The claimed compds. are useful for the treatment of a bacterial infection. Also claimed is a composition comprising a pharmaceutically acceptable carrier and, as active ingredient, a therapeutically effective amount of the claimed compds., the use of the claimed compds. or compns. for the manufacture of a medicament for the treatment of a bacterial infection and a process for preparing the claimed compds. Compds. of formula I and II wherein m is 1, 2, 3 and 4; n is 0, 1, 2, 3 and 4; R1 is H, CN, CHO, carboxy, halo, (halo)alkyl, C2-6 alkenyl, C2-6 alkynyl, OH, alkyloxy, etc.; R2 is H, alkyloxy, aryl, aryloxy, OH, mercapto, alkyloxyalkyloxy, etc.; R3 is alkyl, arylalkyl, aryloxyalkyl, arylalkyloxylalkyl, aryl, etc.; R4 is H and alkyl; R5 is C(=NH)NH2, arylalkyl, heterocyclyl-alkyl, (di)alkylaminoalkyl, aryl, etc.; NR4R5 taken together to form azetidinyl, dihydroisoindolyl, thiazolidinyl, etc.; R6 is (un)substituted Ph, (un)substituted naphthyl, (un)substituted

ΙI

RN

acenaphthyl and (un)substituted tetrahydronaphthyl, etc.; R7 is H, halo, alkyl, aryl, and heterocycle; R8 is H and alkyl; R9 is oxo; R8R9 is $\mathrm{CH=CH-Ne}$; and their stereochem. isomeric forms, N-oxides, pharmaceutically acceptable salts and solvates thereof, are claimed. Example compound III was prepared by a general procedure (procedure given). All the invention compds. were evaluated for their antibacterial activity (data given). $1032444-90-\mathrm{gP}$

RI: PAC (Pharmacological activity); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Usea)

(drug candidate and intermediate; preparation of quinoline derivs. as antibacterial agents useful in the treatment of bacterial infection) 103244+90-8 CA

CN 3-Quinolineethanol, 6-bromo-α-[4-(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)butyl]-2-methoxy-α-2-naphthalenyl-β-phenyl-, (αS,RR)- (CA INDEX NAME)

Absolute stereochemistry.

L8 ANSWER 21 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:53888 CA

TITLE: Antibacterial quinoline derivatives and their preparation, and use in the treatment of bacterial

infection

Guillemont, Jerome Emile Georges; Lancois, David Francis Alain; Dorange, Ismet; Andries, Koenraad Jozef

Lodewijk Marcel; Koul, Anil

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.

SOURCE: PCT Int. Appl., 96pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

INVENTOR(S):

PATENT NO.					KIND DATE				APPL	ICAT		DATE						
WO	2008	8068267			A1 20080612				WO 2	007-	EP63	20071204						
	W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,	
		CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FI,	
		GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	
		KM,	KN,	KP,	KR,	KZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,	
		MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	
		PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	TJ,	TM,	TN,	
		TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW					
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	
		IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT.	RO,	SE,	SI,	SK,	TR.	BF.	
		ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	
		GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	
		BY,	KG,	KZ.	MD,	RU,	TJ,	TM										
PRIORITY	PRIORITY APPLN. INFO.:									EP 2	006-	1254	99		A 20061206			
OTHER SOURCE(S):					MARPAT 149:53888													

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

The invention relates to substituted quinoline derivs, according to the AB general formula I and II: including any stereochem. isomeric form thereof, a pharmaceutically acceptable salt thereof, a N-oxide form thereof or a solvate thereof. The claimed compds. are useful for the treatment of a bacterial infection. Also claimed is a composition comprising a pharmaceutically acceptable carrier and, as active ingredient, a therapeutically effective amount of the claimed compds., the use of the claimed compds. or compns. for the manufacture of a medicament for the treatment of a bacterial infection and a process for preparing the claimed compds. Compds. of formula I and II wherein m is 1, 2, 3 and 4; n is 0, 1, 2, 3 and 4; R1 is alkenyl, alkynyl, C-NOH and derivs., amino, (di)alkylamino, aminoalkyl, etc.; R2 is H, alkyloxy, aryl, aryloxy, OH, mercapto, alkyloxyalkyloxy, etc.; R3 is alkyl, arylalkyl, aryloxyalkyl, arvlalkyloxylalkyl, arvl, etc.; R4 and R5 are independently H, alkyl and Bn; NR4R5 taken together to form pyrrolidinyl, pyrrolyl, imidazolinyl, etc.; R6 is (un)substituted Ph, (un)substituted naphthyl, (un)substituted acenaphthyl and (un)substituted tetrahydronaphthyl, etc.; R7 is H, halo, alkyl, aryl, and heterocycle; R8 is H and alkyl; R9 is oxo; R8R9 is CH=CH-N=; and their stereochem, isomeric forms, N-oxides, pharmaceutically acceptable salts and solvates thereof, are claimed. Example compound III was prepared by a general procedure (procedure given). All the invention compds, were evaluated for their antibacterial activity (data given). 1032265-28-3P IT

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(drug candidate and intermediate; preparation of quinoline derivs. as antibacterial agents useful in the treatment of bacterial infection) 1032265-28-3 CA

3-Quinolineethanol, 6-(aminomethyl)-a-[2-(dimethylamino)ethyl]-2methoxy- α -1-naphthaleny1- β -pheny1-, (α R, β S)-re1-(CA INDEX NAME)

RN

Relative stereochemistry.

REFERENCE COUNT:

2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 22 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:53887 CA

TITLE:

Antibacterial quinoline derivatives and their preparation and use in the treatment of bacterial infection

INVENTOR(S):

Guillemont, Jerome Emile Georges; Dorange, Ismet; Andries, Koenraad Jozef Lodewijk Marcel; Koul, Anil Janssen Pharmaceutica N.V., Belg.

PATENT ASSIGNEE(S):

SOURCE: PCT Int. Appl., 127pp.

LANGUAGE:

CODEN: PIXXD2 DOCUMENT TYPE: Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.						KIND DATE				APPL	ICAT		DATE					
WO	2008068266			A1 20080612				WO 2	007-	EP63	20071204							
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,	
		CH,	CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FI,	
		GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	
		KM.	KN.	KP.	KR.	KZ.	LA.	LC.	LK.	LR.	LS.	LT.	LU.	LY.	MA.	MD,	ME,	
		MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	
							SD,											
							US.									,		
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	
		IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO.	SE.	SI,	SK.	TR,	BF,	
		ВJ,	CF.	CG,	CI,	CM,	GA,	GN,	GO,	GW,	ML,	MR.	NE,	SN,	TD,	TG,	BW,	
							MZ,											
		BY,	KG,	KZ,	MD,	RU,	TJ,	TM										
PRIORITY	PRIORITY APPLN. INFO.:									EP 2	006-	1255	46	- 1	A 20061206			
OTHER SOURCE(S):					MAR													
CT																		

Page 32

OTH GI

$$(R^1)_{\substack{R^7\\Q\\N\\R^2\ I}} \qquad \qquad \begin{pmatrix} R^1)_{\substack{R\\R^7\\R^9\\R^8}} \qquad \qquad \qquad \\ R^8\qquad \qquad \qquad \\ II$$

- The invention relates to substituted quinoline derivs. according to the general formula I and II: including any stereochem. isomeric form thereof, N-oxide thereof, a pharmaceutically acceptable salt thereof or a solvate thereof. The claimed compds. are useful for the treatment of a bacterial infection. Also claimed is a composition comprising a pharmaceutically acceptable carrier and, as active ingredient, a therapeutically effective amount of the claimed compds., the use of the claimed compds. or compns. for the manufacture of a medicament for the treatment of a bacterial infection and a process for preparing the claimed compds. Compds. of formula I and II wherein Q is substituted aminoalk-1-enyl, substituted aminoalk-2-enyl, substituted 2-(aminoalkyl)alk-2-enyl; n is 1, 2, 3 and 4; R1 is H, CN, CHO, CO, halo, (halo)alkyl, C2-6 alkenyl, C2-6 alkynyl, OH, alkoxy, etc.; R2 is H, alkoxy, aryl, aryloxy, OH, mercapto, , etc.; R7 is H, halo, alkyl, arvl, and monocyclic heterocycle; R8 is H and alkyl; R9 is oxo; R8R9 taken together to form CH=CH-N=; and their stereochem, isomeric forms, N-oxides, pharmaceutically acceptable salts, and solvates thereof, are claimed. Example compound III was prepared by a general procedure (procedure given). All the invention compds. were evaluated for their antibacterial activity. From the assay, it was determined that compound III exhibited IC90 value of 1.65 $\mu G/mL$.
- IT 654653-58-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(intermediate, preparation of quinoline derivs. as antibacterial agents useful in the treatment of bacterial infection)

RN 654653-58-4 CA

CN 3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxy-α,β-diphenyl-, (αR,βR)-rel- (CA INDEX NAME)

Relative stereochemistry.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 23 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:

149:53885 CA

TITLE: Antibacterial quinoline derivatives and their

preparation, and use in the treatment of bacterial infection Guillemont, Jerome Emile Georges; Dorange, Ismet; INVENTOR(S):

Motte, Magali Madeleine Simone; Andries, Koenraad Jozef Lodewijk Marcel; Koul, Anil

CODEN: PIXXD2

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg. SOURCE: PCT Int. Appl., 109pp.

Patent

DOCUMENT TYPE: LANGUAGE:

English FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.						DATE		4	APPL	ICAT:		DATE				
	WO 2008068268								1								
	W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,
		CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FI,
		GB,	GD,	GE,	GH,	GM,	GT,	HN.	HR,	HU,	ID,	IL,	IN.	IS.	JP,	KE,	KG,
		KM,	KN,	KP,	KR,	KZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,
		MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,
		PT,	RO,	RS.	RU,	SC,	SD,	SE.	SG,	SK,	SL,	SM,	SV,	SY,	TJ,	TM,	TN,
		TR.	TT.	TZ.	UA.	UG,	US,	UZ,	VC.	VN.	ZA.	ZM.	ZW				
	RW:	AT.	BE.	BG.	CH.	CY.	CZ,	DE.	DK.	EE.	ES.	FI.	FR.	GB,	GR.	HU.	IE.
							MC,										
		BJ,	CF.	CG.	CI.	CM,	GA,	GN.	GO,	GW.	ML.	MR.	NE.	SN.	TD,	TG,	BW,
							MZ,										
							TJ,										
PRIORIT:	Y APP									EP 2	006-	1255	10		A 20	0061	206
OTHER SO	OURCE	(S):	MARPAT 149:53885														

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

The invention relates to substituted quinoline derivs. according to the general formula I and II: including any stereochem. isomeric form thereof, a pharmaceutically acceptable salt thereof, a N-oxide form thereof or a solvate thereof. The claimed compds. are useful for the treatment of a

bacterial infection. Also claimed is a composition comprising a pharmaceutically acceptable carrier and, as active ingredient, a therapeutically effective amount of the claimed compds., the use of the claimed compds. or compns. for the manufacture of a medicament for the treatment of a bacterial infection and a process for preparing the claimed compds. Compds. of formula I and II wherein m is 1, 2, 3 and 4; n is 0, 1, 2, 3 and 4; R1 is H, CN, CHO, carboxy, halo, (halo)alkyl, C2-6 alkenyl, C2-6 alkynyl, OH, alkyloxy, etc.; R2 is H, alkyloxy, aryl, aryloxy, OH, mercapto, alkyloxyalkyloxy, etc.; R3 is alkyl, arylalkyl, aryloxyalkyl, arylalkyloxylalkyl, aryl, etc.; R4 and R5 are independently is H, alkyl and Bn; NR4R5 taken together to form pyrrolidinyl, pyrrolyl, imidazolidinyl, etc.; R6 is (un)substituted Ph, (un)substituted naphthyl, (un) substituted acenaphthyl and (un) substituted tetrahydronaphthyl, etc.; R7 is H, halo, alkyl, aryl, and heterocycle; R8 is H and alkyl; R9 is oxo; R8R9 is CH=CH-N=; and their stereochem. isomeric forms, N-oxides, pharmaceutically acceptable salts and solvates thereof, are claimed. Example compound III was prepared by a general procedure (procedure given). All the invention compds. were evaluated for their antibacterial activity (data given).

1032357-03-1P

RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses) (drug candidate; preparation of quinoline derivs. as antibacterial agents useful in the treatment of bacterial infection)

1032357-03-1 CA RN

3-Quinolineethanol, 6-bromo-α-[4-(dimethylamino)butyl]-2-methoxy- β -phenyl- α -[3-[(1E)-2-phenylethenyl]phenyl]-, (αR, βS)-rel- (CA INDEX NAME)

Relative stereochemistry. Double bond geometry as shown.

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

3 ANSWER 24 OF 67 CA COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 149:38832 CA

> Fumarate salt of (αS, BR) -6-bromo-α-[2-

(dimethylamino)ethyl]-2-methoxy-alpha-1-naphthalenylβ-phenyl-3-quinoline-ethanol for treatment of a

mycobacterial infection

INVENTOR(S): Hegyi, Jean François Alexandre Lucas; Aelterman, Wim

TITLE:

Albert Alex; Lang, Yolande Lydia; Maria Stokbroekx, Sigrid Carl; Leys, Carina; Maria Van Remoortere, Peter Jozef; Faure, Anne Janssen Pharmaceutica N.V., Belg. PCT Int. Apol. 24pp.

SOURCE: PCT Int. Appl., 24pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT ASSIGNEE(S):

PATENT NO. KIND DATE APPLICATION NO. DATE WO 2008068231 A1 20080612 WO 2007-EP63186 20071203 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CT, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM PRIORITY APPLN. INFO.: EP 2006-125443 A 20061205 CASREACT 149:38832 OTHER SOURCE(S): The present invention relates to the fumarate salt of $(\alpha S, \beta R) = 6 - bromo = \alpha - [2 - (dimethylamino)ethyl] = 2 - methoxy - (dimethylamino)ethylamino)ethyll = 2 - methoxy - (dimethylamino)ethyll =$ alpha-1-naphthalenyl-β-phenyl-3-quinoline-ethanol, pharmaceutical compns. comprising as active ingredient said salt, processes for their preparation and use to treat or prevent a mycobacterial infection. Thus, the reaction of 10 g (0.018 mol) of $(\alpha S, \beta R)$ -6-bromo- α -[2- $(dimethylamino)ethyl]-2-methoxy-\alpha-1-naphthalenyl-\beta-phenyl-3$ quinoline-ethanol with 2.13 g (0.018 mol) of fumaric acid in isopropanol yielded 10 g (82%) of $(\alpha S, \beta R)$ -6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy-alpha-1-naphthalenyl-β-phenyl-3quinoline-ethanol (2E)-2-butenedioate (1:1). A tablet composition contained the fumarate salt 120.89 mg (100 mg base equivalent), lactose monohydrate 152.91 mg, maize starch 66 mg, hypromellose 8 mg, Polysorbate 20 1 mg, microcryst. cellulose 82.2 mg, Croscarmellose sodium 23 mg, colloidal silica 1.4 mg, and magnesium stearate 4.6 mg. Tablets obtained may further optionally be film coated with an aqueous suspension of Opadry II White.

IT 843663-66-1

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation and solid oral compns. of fumarate salt of $(\alpha S, \beta R) - 6 - bromo-\alpha - [2 - (dimethylamino)ethyl] - 2 - methoxy-\alpha - 1 - naphthalenyl - \beta - phenyl - 3 - quinoline - ethanol for prevention and treatment of mycobacterial infection)$

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, $(\alpha S, \beta R)$ - (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

3 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

148:569305 CA

ACCESSION NUMBER: TITLE:

REFERENCE COUNT:

AUTHOR(S):

CORPORATE SOURCE:

SOURCE:

L8 ANSWER 25 OF 67 CA COPYRIGHT 2009 ACS on STN

Use of the bromine isotope ratio in HPLC-ICP-MS and HPLC-ESI-MS analysis of a new drug in development Cuyckens, Filip; Balcaen, Lieve I. L.; Wolf, Kenny; Samber, Biorn; Looveren, Cis; Hurkmans, Rob;

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

Vanhaecke, Frank Global Preclinical Development, Johnson & Johnson Pharmaceutical R&D, Beerse, 2340, Belg. Analytical and Bioanalytical Chemistry (2008), 390(7),

1717-1729

CODEN: ABCNBP: ISSN: 1618-2642

PUBLISHER: Springer DOCUMENT TYPE: Journal LANGUAGE: English

A combination of inductively coupled plasma mass spectrometry (ICP-MS) and electrospray ionization mass spectrometry (ESI-MS) was deployed for the metabolite profiling and metabolite identification of a new antituberculosis compound (R207910, also known as TMC207) that is currently in drug development. R207910 contains one bromine atom, allowing the detection by ICP-MS. Fluctuations in the Br sensitivity caused by the HPLC gradient were counteracted by the use of species-unspecific isotope dilution In order to evaluate the method developed, the results obtained were compared with those acquired via radioactivity detection. HPLC-ESI-MS was used for the structural identification of R207910 and its metabolites. The 79Br/81Br isotope ratio is also valuable in the search for metabolites in the complex background of endogenous compds. obtained using HPLC-ESI-MS analyses. Data-dependent scanning using isotope recognition with an ion trap mass spectrometer or processing of Q-Tof data provides HPLC-ICP-MS-like "bromatograms". The combination of accurate mass measurements and the fragmentation behavior in the MS2 spectra obtained using the Q-Tof Ultima mass spectrometer or MSn spectra acquired using the LTQ-Orbitrap allowed structural characterization of the main metabolites of R207910 in methanolic dog and rat feces exts. taken 0-24 h post-dose.

861709-47-9

RL: ANT (Analyte); BSU (Biological study, unclassified); FMU (Formation, unclassified); ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative)

(use of bromine isotope ratio in HPLC-ICP-MS and HPLC-ESI-MS anal. of new drug in development)

RN 861709-47-9 CA

3-Quinolineethanol, 6-bromo-2-methoxy-\alpha-[2-(methylamino)ethyl]α-1-naphthalenvl-β-phenvl-, (αS, βR)- (CA INDEX NAME)

Absolute stereochemistry.

OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD

(8 CITINGS)

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 26 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:4856 CA

TITLE: In vitro antimycobacterial spectrum of a diarylquinoline ATP synthase inhibitor

AUTHOR(S): Huitric, Emma; Verhasselt, Peter; Andries, Koen;

Hoffner, Sven E.

CORPORATE SOURCE: Swedish Institute for Infectious Disease Control, Solna, Swed.

SOURCE: Antimicrobial Agents and Chemotherapy (2007), 51(11), 4202-4204

CODEN: AMACCO; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

The diarylquinoline R207910 is in clin. development for tuberculosis treatment. The MIC50 for 41 drug-susceptible and 44 multidrug-resistant Mycobacterium tuberculosis clin. isolates was 0.032 µg/mL. Out of 20 addnl. mycobacterial species, 3 were found to be naturally resistant to R207910 and were shown to exhibit a polymorphism in their atpE genes.

843663-66-1, R207910 TT RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL

(Biological study); USES (Uses) (antimycobacterial activity of diarylquinoline ATP synthase inhibitor R207910 against drug-susceptible and multidrug-resistant Mycobacterium

tuberculosis) RN 843663-66-1 CA

3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, $(\alpha S, \beta R)$ - (CA INDEX

NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 27 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:

147:495951 CA TITLE:

Hyphenation of reverse-phase HPLC and ICP-MS for metabolite profiling-application to a novel antituberculosis compound as a case study

AUTHOR(S): Balcaen, Lieve I. L.; Samber, Bjoern; Wolf, Kenny; Cuyckens, Filip; Vanhaecke, Frank

CORPORATE SOURCE: Department of Analytical Chemistry, Ghent University, Ghent, 9000, Belg.

SOURCE: Analytical and Bioanalytical Chemistry (2007), 389(3),

777-786 CODEN: ABCNBP; ISSN: 1618-2642

PUBLISHER: Springer

DOCUMENT TYPE: Journal LANGUAGE: English

In this study, a high-performance liquid chromatog. (HPLC) inductively coupled plasma (ICP) mass spectrometry (MS) method was developed intended for use in metabolism studies of bromine-containing drugs, administered to test animals (or test persons). As a case study, the method was applied to a new antituberculosis compound, the bromine-containing diarylquinoline R207910. A method was proposed to overcome the incompatibilities between the high organic solvent content (45% CH3OH and 45% CH3CN) used in the reverse-phase liquid chromatog. (LC) separation on one hand and the limitations of the ICP on the other hand. Therefore, several instrument modifications had to be made. For the introduction of the column effluent, a combination of a perfluoroalkoxy LC nebulizer with a PC3 Peltier-cooled inlet system (operated at 2 °C) was used. Addnl., the standard injector tube (internal diameter 2 mm) was replaced by an injector tube with an internal diameter of 1 mm and to avoid carbon build-up on the interface cones and the torch, the nebulizer gas was admixed with 6% volume/volume of oxygen. After optimization of the method, HPLC-ICP-MS was applied for metabolite profiling of feces samples after dosing of 14C-radiolabeled R207910 to dogs and rats. To evaluate the method developed, the HPLC-ICP-MS results were compared with those of HPLC with UV spectrophotometric and 14C radiochem. detection. As the HPLC-ICP-MS method gave rise to a higher selectivity than HPLC with UV detection and to a better detection limit (5 ng R207910) than the method with radiochem. detection (65 ng R207910), it can be concluded that ICP-MS can be used as a good alternative to the more traditional detection methods, even when a mobile phase with high organic solvent content has to be used in the LC separation

ΤТ 861709-47-9, R 207910m

RL: ANT (Analyte); ANST (Analytical study)

(hyphenated RP-HPLC-ICP-MS method for metabolite profiling of novel antituberculosis compound)

861709-47-9 CA RN

3-Quinolineethanol, 6-bromo-2-methoxy-\alpha-[2-(methylamino)ethyl]α-1-naphthalenvl-β-phenvl-, (αS, βR)- (CA INDEX NAME)

Absolute stereochemistry.

OS.CITING REF COUNT: THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD 3 (3 CITINGS)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 28 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:

TITLE:

Location of persisting mycobacteria in a guinea pig model of tuberculosis revealed by R207910

Lenaerts, Anne J.; Hoff, Donald; Aly, Sahar; Ehlers, AUTHOR(S): Stefan; Andries, Koen; Cantarero, Luis; Orme, Ian M.;

Basaraba, Randall J.

147:291461 CA

CORPORATE SOURCE: Department of Microbiology, Immunology and Pathology, Colorado State University, Fort Collins, CO, 80523,

USA Antimicrobial Agents and Chemotherapy (2007), 51(9),

3338-3345

CODEN: AMACCO: ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The lengthy chemotherapy of tuberculosis reflects the ability of a small subpopulation of Mycobacterium tuberculosis bacteria to persist in infected individuals. To date, the exact location of these persisting bacteria is not known. Lung lesions in guinea pigs infected with M. tuberculosis have striking similarities, such as necrosis, mineralization, and hypoxia, to natural infections in humans. Guinea pigs develop necrotic primary lesions after aerosol infection that differ in their morphol. compared to secondary lesions resulting from hematogenous dissemination. In infected guinea pigs conventional therapy for tuberculosis during 6 wk reduced the bacterial load by 1.7 logs in the lungs and, although this completely reversed lung inflammation associated with secondary lesions, the primary granulomas remained largely unaffected. Treatment of animals with the exptl. drug R207910 (TMC207) for 6 wk was highly effective with almost complete eradication of the

SOURCE:

bacteria throughout both the primary and the secondary lesions. Most importantly, the few remnants of acid-fast bacilli remaining after R207910 treatment were to be found extracellular, in a microenvironment of residual primary lesion necrosis with incomplete dystrophic calcification. This zone of the primary granuloma is hypoxic and is morphol. similar to what has been described for human lung lesions. These results show that this acellular rim may, therefore, be a primary location of persisting bacilli withstanding drug treatment.

843663-66-1, R207910

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(TMC207; location of persisting mycobacteria in a guinea pig model of tuberculosis revealed by R207910)

843663-66-1 CA RN

CM 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: THERE ARE 22 CAPLUS RECORDS THAT CITE THIS 22

RECORD (22 CITINGS)

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 29 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 147:202669 CA

TITLE:

Prospects for non-clinical or clinical development of new antituberculous drugs in relation to corporate strategy

AUTHOR(S): Namba, Kenji

CORPORATE SOURCE: New Product Research Laboratories I, Daiichi

Pharmaceutical Co., Ltd., Japan Kekkaku (2006), 81(12), 754-756, 773 SOURCE:

CODEN: KEKKAG; ISSN: 0022-9776

Nippon Kekkakubyo Gakkai PUBLISHER: DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB A review. Tuberculosis (TB) remains one of the deadliest threats to public health. No new anti-TB drugs have been brought into the clinic in the past 40 years. Current non-clin. works with progressed technol. and Global Alliance for TB Drug Development, a non-profit organization established in 2000, accelerate research and development of faster-acting anti-TB compds. We reviewed the status of new types of compds. which are being developed as anti-TB drug, such as diarylquinoline (TMC 207), nitroimidazole (PA-824 & OPC-67683), and moxifloxacin (MFLX). We also

discussed the best clin. development plans for new-TB drugs in relation to corporate strategy.

843663-66-1, TMC 207

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(prospects for non-clin. or clin. development of new antituberculous drugs in relation to corporate strategy)

843663-66-1 CA

CN 3-Ouinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

L8 ANSWER 30 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 147:157466 CA

Diarylquinolines target subunit c of mycobacterial ATP TITLE:

synthase

AUTHOR(S): Koul, Anil; Dendouga, Najoua; Vergauwen, Karen; Molenberghs, Brenda; Vranckx, Luc; Willebrords, Rudy;

Ristic, Zorica; Lill, Holger; Dorange, Ismet;

Guillemont, Jerome; Bald, Dirk; Andries, Koen

CORPORATE SOURCE: Department of Antimicrobial Research, Tibotec BVBA, Beerse, B-2340, Belg.

SOURCE: Nature Chemical Biology (2007), 3(6), 323-324

CODEN: NCBABT; ISSN: 1552-4450

Nature Publishing Group PUBLISHER:

DOCUMENT TYPE: Journal

LANGUAGE: English AB

The diarylquinoline R207910 (TMC207) is a promising candidate in clin. development for the treatment of tuberculosis. Though R207910-resistant mycobacteria bear mutations in ATP synthase, the compound's precise target is not known. Here we establish by genetic, biochem. and binding assays that the oligomeric subunit c (AtpE) of ATP synthase is the target of R207910. Thus targeting energy metabolism is a new, promising approach for antibacterial drug discovery.

654653-92-6

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(diarylquinolines target subunit c of mycobacterial ATP synthase) 654653-92-6 CA

3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxyα-1-naphthalenyl-β-phenyl-, (αR, βR)-rel- (CA INDEX NAME)

Relative stereochemistry.

OS.CITING REF COUNT: 25 THERE ARE 25 CAPLUS RECORDS THAT CITE THIS

RECORD (25 CITINGS)

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 31 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 147:134382 CA

TITLE: Novel quinoline derivative for treating bacterial infection except mycobacteria infection

INVENTOR(S): Andries, Koenraad Jozef Lodewijk Marcel; Koul, Anil;
Guillemont, Jerome Emile Georges; Pasquier, Elisabeth

Therese Jeanne
PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent

LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2006128191	A	20061214	KR 2005-49427	20050609
PRIORITY APPLN. INFO.:			KR 2005-49427	20050609

- AB A novel quinoline derivative is provided to be used for treating bacteria infection, except mycobacteria infection.
- IT 654654-32-7
- RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (quinoline derivs. for treating bacterial infection)
- RN 654654-32-7 CA
 - N 3-Quinolineethanol, 6-bromo-α-(1,2-dihydro-5-acenaphthylenyl)α-[2-(dimethylamino)ethyl]-2-methoxy-β-phenyl- (CA INDEX NAME)

L8 ANSWER 32 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 146:521297 CA

TITLE: Absolute configuration and structural features of

R207910, a novel anti-tuberculosis agent

AUTHOR(S): Petit, S.; Coquerel, G.; Mever, C.; Guillemont, J. Sciences et Methodes Separatives, UPRES EA 3233 IRCOF, CORPORATE SOURCE:

University of Rouen, Mont Saint Aignan, F-76821, Fr. SOURCE: Journal of Molecular Structure (2007), 837(1-3),

252-256

CODEN: JMOSB4; ISSN: 0022-2860

PUBLISHER: Elsevier B.V. DOCUMENT TYPE: Journal LANGUAGE: English

In the structure of R207910 ((1R,2S)-1-(6-bromo-2-methoxy-quinolin-3-y1)-4dimethylamino-2-naphthalen-1-yl-1-phenyl-butan-2-ol, C32H31BrN2O2), the two independent mols. of the asym. unit present similar conformations. They are related to each other by a local pseudo-binary axis whose orientation does not correspond to a defined crystallog, direction of the orthorhombic unit cell, giving rise to an unusual type of supersymmetry. Infinite mol. chains are generated by two types of weak intermol. contacts: Br-Br interactions and π -stacking. The role of these weak contacts and of $(CH-\pi)$ interactions in the structural cohesion is highlighted, and their possible incidence on supersymmetry is envisaged.

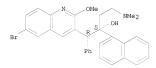
843663-66-1, R207910 RL: PRP (Properties)

(absolute configuration and structural features of novel anti-tuberculosis agent R207910)

843663-66-1 CA RN

CN 3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxyα-1-naphthalenvl-β-phenvl-, (αS, βR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 33 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 146:474778 CA

TITLE: A computational model of the inhibition of Mycobacterium tuberculosis ATPase by a new drug

candidate R207910

AUTHOR(S): de Jonge, Marc R.; Koymans, Luc H. M.; Guillemont,

Jerome E. G.; Koul, Anil; Andries, Koen

CORPORATE SOURCE: MolMo Services BVBA, Turnhout, B2300, Belg.

Proteins: Structure, Function, and Bioinformatics SOURCE:

(2007), 67(4), 971-980

CODEN: PSFBAF

PUBLISHER: Wiley-Liss, Inc.

DOCUMENT TYPE: Journal LANGUAGE: English

Diarylquinolines (DAROs) are a new class of potent inhibitors of the

ATPase of Mycobacterium tuberculosis. We have created a homol. model of a binding site for this class of compds. located on the contact area of the a-subunit (gene atpB) and c-subunits (gene atpE) of Mycobacterium tuberculosis ATPase. The binding pocket that was identified from the anal. of the homol. model is formed by 4 helixes of three c-subunits and 2 helixes of the a-subunit. The lead compound of the DARQ series, R207910, was docked into the pocket using a simulated annealing, multiple conformer, docking algorithm. Different stereoisomers were treated sep. The best docking pose for each stereoisomer was optimized by mol. dynamics simulation on the 5300 atoms of the binding region and ligand. The interaction energies in the computed complexes enable us to rank the different stereoisomers in order of interaction strength with the ATPase binding pockets. We propose that the activity of R207910 against Mycobacterium tuberculosis is based on interference of the compound with the escapement geometry of the proton transfer chain. Upon binding the compound mimicks the conserved Arg-186 residue of the a-subunit and interacts in its place with the conserved acidic residue Glu-61 of the c-subunit. This mode of action is corroborated by the good agreement between the computed interaction energies and the observed pattern of stereo-specificity in the model of the binding region.

843663-66-1, R207910

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

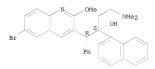
(computational model of inhibition of Mycobacterium tuberculosis ATPase by a new drug candidate R207910)

RN 843663-66-1 CA

CN

3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



OS.CITING REF COUNT: THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 34 OF 67 CA COPYRIGHT 2009 ACS on STN

10/596,270

ACCESSION NUMBER: 146:313715 CA

TITLE: New therapeutic strategy for Multi-Drug-Resistant

Tuberculosis

AUTHOR(S): Doi, Takao
CORPORATE SOURCE: The Research Institute of Tuberculosis Japan

Anti-Tuberculosis Association, Japan

SOURCE: Bunshi Kokvukibvo (2007), 11(1), 109-112

CODEN: BUKOFC; ISSN: 1342-436X

PUBLISHER: Sentan Igakusha

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB A review discusses therapeutic application of new drugs including PA-824, Diarylquinoline, moxifloxacin, nitroimidazo-oxazole and new Quinolone in treatment of multi-drug-resistant tuberculosis

IT 843663-66-1, R 207910

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (new therapeutic strategy for multi-drug-resistant tuberculosis)

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, $(\alpha S, \beta R)$ - (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

L8 ANSWER 35 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 146:291214 CA

TITLE: Multi-drug-resistant Mycobacterium tuberculosis
AUTHOR(S): Tokue, Yutaka

CORPORATE SOURCE: Sch. of Medicine, Gunma Univ., Japan

Lung Perspectives (2005), 13(3), 257-260

CODEN: LUPEFF; ISSN: 0919-5742

PUBLISHER: Medikaru Rebyusha
DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB A review on control of multidrug -resistant M. tubercolosis which is resistant to INH (isoniazid) and RFP (rifampicin), resistance mechanism to antituberculosis, treatment of multidrug resistant M. tuberculosis with

e.g. diarylquinoline R207910, advance in diagnosis, etc.

IT 843663-66-1, R207910

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(multi-drug-resistant Mycobacterium tuberculosis)

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxy-

SOURCE:

α-1-naphthalenv1-β-phenv1-, (αS, βR)- (CA INDEX

Absolute stereochemistry. Rotation (-).

L8 ANSWER 36 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 146:266208 CA

TITLE: Synergistic activity of R207910 combined with

pyrazinamide against murine tuberculosis

AUTHOR(S): Ibrahim, M.; Andries, K.; Lounis, N.; Chauffour, A.; Truffot-Pernot, C.; Jarlier, V.; Veziris, N.

CORPORATE SOURCE: Laboratoire de Bacteriologie, Faculte de Medecine

Pitie-Salpetriere, Groupe Hospitalier Pitie-Salpetriere, Assistance Publique Hopitaux de

Paris, Universite Pierre et Marie Curie Paris 6 and Centre National de Reference de la Resistance des

Mycobacteries aux Antituberculeux, Paris, Fr. SOURCE: Antimicrobial Agents and Chemotherapy (2007), 51(3),

1011-1015

CODEN: AMACCO; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

In previous studies, the diarylquinoline R207910 (also known as TMC207) was demonstrated to have high bactericidal activity when combined with first- or second-line antituberculous drugs. Here we extend the evaluation of R207910 in the curative model of murine tuberculosis by assessing the activities of one-, two-, and three-drug combinations containing R207910 and isoniazid (INH), rifampin (RIF), pyrazinamide (PZA), or moxifloxacin (MXF) in the setting of a high initial bacillary load (7.2 log10 CFU). Two months of treatment with the combinations R207910-PZA, R207910-PZA-INH, R207910-PZA-RIF, or R207910-PZA-MXF resulted in culture-neg. lung homogenates in 70 to 100% of the mice, while mice treated with INH-RIF-PZA (the reference regimen) or RIF-MXF-PZA remained culture pos. Combinations including R207910 but not PZA (e.g., R207910-INH-RIF and R207910-MXF-RIF) were less active than

R207910-PZA-containing regimens administered either alone or with the addition of

INH, RIF, or MXF. These results reveal a synergistic interaction between R207910 and PZA. Three-drug combinations containing these two drugs and INH, RIF, or MXF have the potential to significantly shorten the treatment duration in patients, provided that these results can be confirmed in

long-term expts. including periods of relapse.

843663-66-1, R207910 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(synergistic activity of R207910 combined with pyrazinamide against murine tuberculosis)

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, $(\alpha S, \beta R)$ - (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: 21 THERE ARE 21 CAPLUS RECORDS THAT CITE THIS

RECORD (21 CITINGS)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 37 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 146:242883 CA TITLE: Recent advance:

TITLE: Recent advances in the medical and surgical treatment of multi-drug resistant tuberculosis

AUTHOR(S): Lalloo, Umesh G.; Naidoo, Rishendran; Ambaram, Anish CORPORATE SOURCE: Division of Respiratory and Critical Care, Department

of Medicine, University of KwaZulu-Natal, Durban, S. Afr.

SOURCE: Current Opinion in Pulmonary Medicine (2006), 12(3), 179-185

CODEN: COPMFY; ISSN: 1070-5287

PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

Purpose of review: Multi-drug resistant tuberculosis is a serious clin. problem. Extension of drug resistance to second-line anti-tuberculosis drugs in the form of the W-strain is cause for alarm. There is an urgent need for more rapid recognition of multi-drug resistant tuberculosis and newer therapeutic agents. This review summarizes the recent advances in the diagnosis and treatment of multi-drug resistant tuberculosis including surgery and new developments. Recent findings: Multidrug resistant tuberculosis therapy is characterized by prolonged treatment, high morbidity and mortality, and high relapse rates. New diagnostic procedures that include electrophoretic and mol. hybridization techniques will allow rapid diagnosis. Several new drugs are currently in various phases of development. Moxifloxacin, a respiratory fluoroquinolone, is currently in phase III clin. development. New classes of drugs such as nitroimidazopyrans (PA-824) and diarylquinolines (R-207910) are exciting based on phase I and II data. Immunomodulation with vaccines and interferon- γ have been unhelpful. Surgery is reserved for selected cases only. Cure rates of over 90% with reasonable morbidity and

mortality has been achieved with meticulous preoperative preparation, patient selection and careful surgical technique. Summary: Newer drugs and defined indications for surgery should provide improved cure rates, with reduced duration of treatment for multi-drug resistant tuberculosis.

843663-66-1, R-207910

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(new therapeutic agents such as moxifloxacin, nitroimidazopyran PA-824 and diarylquinoline R-207910 may be used for treatment of multi-drug resistant tuberculosis patient)

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxyα-1-naphthalenyl-β-phenyl-, (αS, βR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 38 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 146:229200 CA

TITLE: Preparation of quinoline derivatives as antibacterial

INVENTOR(S):

Guillemont, Jerome Emile Georges; Pasquier, Elisabeth Therese Jeanne; Lancois, David Francis Alain; Andries, Koenraad Jozef Lodewijk Marcel; Koul, Anil; Backx, Leo Jacobus Jozef: Meerpoel, Lieven

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent English

LANGUAGE: FAMILY ACC. NUM. COUNT: 1

PATENT N	ο.			KIN	D	DATE		i	APPL	ICAT	ION I	NO.	D	ATE	
	WO 2007014941 WO 2007014941 W: AE, AG, AI					2007		1	WO 2	006-1	EP64	858	 2	0060	731
W:	ΑE,	AG,			AT,		AZ,								
						HU, LR,									

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             US, UZ, VC, VN, ZA, ZM, ZW
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     CN 101277696
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                                20081001
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                                                                    20080402
PRIORITY APPLN. INFO.:
                                             EP 2005-107164
                                                                   20050803
                                            WO 2006-EP64858
                                                                 W 20060731
OTHER SOURCE(S):
                        MARPAT 146:229200
GI
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AB Use of a compound for the manufacture of a medicament for the treatment of a bacterial infection provided that the bacterial infection is other than a Mycobacterial infection, said compound being a compound of formula I [Ar = (un)substituted phenyl; R1 = H, halo(alkyl), cyano, etc.; R2 = H, halo, mercapto, etc.; R3 = alkyl, (un)substituted aryl(alkyl) or heterocyclyl(alkyl); R4, R5 = independently H, alkyl or benzyl or R4R5N = heterocyclyl; R7 = H, alkyl, (un)substituted aryl or heterocyclyl; m, n = independently 0-4; p = 1-31, a pharmaceutically acceptable acid or base addition salt, a quaternary amine, a stereochem. isomeric form, a tautomeric form or a N-oxide form thereof. For example, II was provided in a

multi-step synthesis starting from the reaction of

5-bromo-1H-indole-2,3-dione with 4-phenyl-2-butanone. I showed antibacterial activity in Microtitre plate assay.

IT 862543-35-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of quinoline derivs. as antibacterial agents)

RN 862543-35-9 CA

CN 6-Quinolineethanol, 2-chloro-α-(3,5-difluorophenyl)-α-[2-(dimethylamino)ethyl]-3-ethyl-β-phenyl- (CA INDEX NAME)

Me2N-CH2-CH2

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 39 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 146:229199 CA

TITLE: Preparation of quinoline derivatives as antibacterial agents

INVENTOR(S): Andries, Koenraad Jozef Lodewijk Marcel; Koul, Anil;

Guillemont, Jerome Emile Georges; Pasquier, Elisabeth Therese Jeanne; Lancois, David Francis Alain

Janssen Pharmaceutica N.V., Belg.

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., SOURCE: PCT Int. Appl., 85 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PA:	ENT I	. OP			KIN	D	DATE			APPL	ICAT	ION	NO.		D	ATE		
						-									-			
OW	2007	0149	40		A2		2007	0208		WO 2	006-1	EP64:	856		2	0060	731	
WO	2007	0149	40		A3		2007	0329										
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		MW,	MX,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,	RU,	
		SC,	SD,	SE,	SG,	SK,	SL,	SM,	SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	
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AU	20062	748	79		A1		2007	0208		AU	2006	-2748	79		2	0060	731
CA	26159	01			A1		2007	0208		CA	2006	-2615	901		2	0060	731
EP	19126	47			A2		2008	0423		EP	2006	-7780	81		2	0060	731
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IN	20081	моо.	751		A		2008	0711		IN	2008	-DN75	1		2	0080	128
US	20080	255	116		A1		2008	1016		US	2008	-9971	82		2	0080	129
MX	20080	0160)2		A		2008	0219		MX	2008	-1602			2	0080	201
NO	20080	0009	55		A		2008	0225		NO	2008	-955			2	0080	225
KR	20080	3831	30		A		2008	0506		KR	2008	-7050	66		2	0080	229
CN	10127	7695	ō		A		2008	1001		CN	2006	-8003	6637		2	0080	402
PRIORITY	APPI	N. :	INFO	. :						EP	2005	-1071	59		A 2	0050	803
										WO	2006	-EP64	856		W 2	0060	731
OTHER SO	OURCE (S):			MARP	ΑT	146:	22919	9								

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. represented by the formula I & II (wherein R1 = H, halo(alkyl), aryl, etc.; R2 = H, alkyl(oxy), mercapto, etc.; R3 = alkyl, (un)substituted aryl(alkyl) or heterocyclyl(alkyl); R4, R5 = independently H, alkyl or benzyl, or R4R5N = heterocyclyl; R6 = H or phenyl(alkyl); R7 = H, alkyl, aryl or heterocyclyl; R8 = H or alkyl; R9 = oxo; or R8R5 = -CH=CH=N=; m = 1-3; n = 0-4; and pharmaceutically acceptable acid or base addition salts, quaternary amines, stereoisomers, tautomers or N=oxides thereof) were prepared as antibacterial agents. For example, III was provided in a multi-step synthesis starting from N=(3-bromophenyl)-a-(phenylmethylene)benzeneacetamide. I showed antibacterial activity in Microtitre plate assay.

IT 861872-66-4

RL: PRPH (Prophetic)
(Preparation of quinoline derivatives as antibacterial agents)

RN 861872-66-4 CA

CN 6-Quinolinemethanol, 2-chloro-α-[2-(dimethylamino)ethyl]-α-2furanyl-4-phenyl- (CA INDEX NAME)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 40 OF 67 CA COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 146:229198 CA Preparation of quinoline de

Preparation of quinoline derivatives as antibacterial

agents

INVENTOR(S): Andries, Koenraad Jozef Lodewijk Marcel; Koul, Anil;

Guillemont, Jerome Emile Georges; Pasquier, Elisabeth Therese Jeanne

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.

SOURCE: PCT Int. Appl., 63 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

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		GE,	GH,	GM,	HN,	HR,	HU,	ID,	IL,	IN	, IS	, JP,	KE,	KG,	KM,	KN,	KP,
												, LY,					
												, PH,					
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							ZM,										
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												, SE,					
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EP												-7926					
	R:											, FI,					
		IS,	IT,	LI,	LT,	LU,	LV,	MC,	NL,	PL	, PI	, RO,	SE,	SI,	SK,	TR,	AL,
			HR,														
	2009											-5245					
	2008											-DN74					
US	2008	0227	775		A1		2008	0918		US	2008	-9970	15		2	0080	128
MX	2008	0016	01		A		2008	0219		MX	2008	-1601 -1068 -7050			2	0080	201
NO	2008	0010	68		A		2008	0229		NO	2008	-1068			2	0080	229
KR	2008	0399	61		A		2008	0507		KR	2008	-7050	63		2	0080	229
CN	1012	7769	8		A		2008	1001		CN	2006	-8003	6781		2	0800	402
PRIORIT	Y APP	LN.	INFO	. :								-1071				0050	803
OTHER S												-EP64			W 2	0060	/31

- AB Use of a compound for the manufacture of a medicament for the treatment of a bacterial infection provided that the bacterial infection is other than a Mycobacterial infection, said compound being a compound of formula I & II [RI = H, halo(alkyl), cyano, etc.; R2 = H, halo, mercapto, etc.; R3 = alkyl, (un)substituted aryl(alkyl) or heterocyclyl(alkyl); R4 = H, alkyl or benzyl; R5 = H, halo(alkyl), (aryl)alkyl, etc.; R6 = H, alkyl, (un)substituted aryl or heterocyclyl; R7 = H or alkyl; R8 = oxo; Z = CH2 or C=O; m = 1-4; n = 1-5], a pharmaceutically acceptable acid or base addition salt, a quaternary amine, a stereochem. isomeric form, a tautomeric form or a N-oxide form thereof. For example, III was provided in a multi-step synthesis starting from the reaction of benzenepropanoyl chloride with 4-bromobenzenamine. I showed antibacterial activity in Microtitre plate assay.
- IT 654654-75-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 - (preparation of quinoline derivs. as antibacterial agents)
- RN 654654-75-8 CA
- CN 3-Quinolineethanol, 6-bromo-2-methoxy- α -[2-(methylamino)ethyl]- α -1-naphthalenyl- β -phenyl-, (α R, β R)-rel- (CA INDEX NAME)

Relative stereochemistry.

REFERENCE COUNT:

2 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 41 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 146:121847 CA

TITLE: Quinoline derivatives as antibacterial agents and their preparation, pharmaceutical compositions and use in the treatment of bacterial infections

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS

INVENTOR(S): Andries, Koenraad Jozef Lodewijk Marcel; Koul, Anil; Guillemont, Jerome Emile Georges; Lancois, David Francis Alain; Motte, Magali Madeleine Simone; Dorange, Ismet; Backx, Leo Jacobus Jozef; Meerpoel,

Lieven

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg. SOURCE: PCT Int. Appl., 118pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PA7	ENT:	NO.			KINI)	DATE		i			ION 1			D	ATE	
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		GE,	GH,	GM,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP
		KR,	KZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN
		MW,	MX,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,	RU
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		CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH
		GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY
		KG,	KZ,	MD,	RU,	TJ,	TM										
λU	2006	2638	83		A1		2007	0104	- 2	AU 2	006-	2638	83		2	0060	626
CA	2612	619			A1		2007	0104		CA 2	006-	2612	619		2	0060	626
EΡ	1898	914			A1		2008	0319	1	EP 2	006-	7638	89		2	0060	626
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		IS,	IT,	LI,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	AL
		BA,	HR,	MK,	YU												
JΡ	2008	5439	64		T		2008	1204		JP 2	-800	5188	10		2	0060	626
ſΧ	2008	0000	81		A		2008	0324	1	MX 2	-800	81			2	0071	219
ΙN	2008	DN00	349		A		2008	0815		IN 2	-800	DN34	9		2	0080	114

KR 2008021156 NO 2008000501	A A	20080306 20080228		2008-702107 2008-501		20080125 20080128
CN 101247811	A	20080820	CN	2006-80031055		20080225
PRIORITY APPLN. INFO.:			EP	2005-105762	A	20050628
			WO	2006-EP63553	W	20060626

OTHER SOURCE(S): MARPAT 146:121847

OTHER SOURCE(S): MARPAI 146:1218

- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- Use of a compound for the manufacture of a medicament for the treatment of a bacterial infection provided that the bacterial infection is other than a Mycobacterial infection, said compound being a compound of formula I or I a pharmaceutically acceptable acid or base addition salt thereof, a stereochem. isomeric form thereof, a tautomeric form thereof or a N-oxide form thereof, are disclosed. Compds. of formula I and II wherein R1 is H, halo, haloalkyl, CN, OH, (un) substituted aryl, (un) substituted heterocyclyl, (un) substituted alkyl, etc.; p is 1, 2, 3 and 4; R2 is H, OH, mercapto, alkyloxy(alkyloxy), alkylthio, etc.; R3 is (un)substituted alkyl, (un)substituted aryl(alkyl), and (un)substituted heterocyclyl(alkyl); q is 1, 2 and 3; R4 and R5 are independently H, (un) substituted alkyl and benzyl; or R4 and R5 together and including the N to which they are attached may form a ring; R6 is H, halo, haloalkyl, OH, (un) substituted aryl, (un) substituted alkyl, alkyloxy, alkylthio, etc.; r is 1, 2, 3, 4 and 5; R7 is H, (un) substituted alkyl, (un) substituted aryl and (un) substituted heterocyclyl; R8 is H and (un) substituted alkyl; R9 is oxo; or R8 and R9 together form the radical -CH=CH-N=; and their pharmaceutically acid and base addition salts, stereochem. isomeric forms, tautomeric forms, and N-oxides thereof, are claimed. Example compound III was prepared by addition of 3-benzyl-6-bromo-2-methylsulfanylquinoline to 5-(dimethylamino)-1-phenyl-1-pentanone. All the invention compds. were evaluated for their antibacterial activity. Several of the invention compds. showed good activity against several bacteria.
 - T 918647-06-0P RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)
 - (drug candidate and intermediate; preparation of quinoline derivs. as antibacterial agents useful in the treatment of bacterial infections) 918647-06-0 CA
- CN 3-Quinolineethanol, β-(4-bromophenyl)-α-[4-(dimethylamino)butyl]-2-methoxy-α-2-naphthalenyl- (CA INDEX NAME)

RN

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 42 OF 67 CA COPYRIGHT 2009 ACS on STN 146:121846 CA

5

ACCESSION NUMBER:

TITLE: Quinoline derivatives as antibacterial agents and their preparation, pharmaceutical compositions and use in the treatment of bacterial infections

INVENTOR(S):

Andries, Koenraad Jozef Lodewijk Marcel; Koul, Anil; Lancois, David Francis Alain; Motte, Magali Madeleine Simone; Guillemont, Jerome Emile Georges Janssen Pharmaceutica N.V., Belg.

PATENT ASSIGNEE(S):

SOURCE:

PCT Int. Appl., 62pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

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NO	2008	0004	99		A		2008	0229		NO 2	008-	499			2	0800	128

KR 2008028459	A	20080331	KR	2008-702246		20080128
CN 101252927	A	20080827	CN	2006-80031302		20080227
PRIORITY APPLN. INFO.:			EP	2005-105755	A	20050628
			WO	2006-EP63552	W	20060626
OTHER SOURCE(S):	MARPAT	146:121846				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Use of a compound for the manufacture of a medicament for the treatment of a bacterial infection provided that the bacterial infection is other than a Mycobacterial infection, said compound being a compound of formula I or II a N-oxide, a tautomeric form or a stereochem. isomeric form thereof. Compds. of formula I and II wherein A- is pharmaceutically acceptable counter ion; R1 is H, halo, haloalkyl, CY, OH, (un)substituted aryl, (un) substituted heterocyclyl, (un) substituted alkyl, etc,; p is 1, 2, 3, and 4; R2 is H, OH, mercapto, alkyloxy(alkyloxy), alkylthio, etc.; R3 is (un) substituted alkyl, (un) substituted aryl(alkyl), and (un) substituted heterocyclyl(alkyl); q is 0, 1, 2, 3, and 4; R4 and R5 are independently H, (un) substituted alkyl, and (un) substituted benzyl; R4R5 together with N may form a heterocyclyl; R6 is H, halo, OH, haloalkyl, (un)substituted aryl, (un)substituted alkyl(oxy), etc.; r is 1, 2, 3, 4, and 5; R7 is H, (un) substituted alkyl, (un) substituted aryl, and (un) substituted heterocyclyl; R8 is H and (un)substituted alkyl; R9 is oxo; R8R9 together may form the radical CH-CH-N=; R10 is (un)substituted alkyl, alkylcarbonyl, (un)substituted aryl(alkyl), etc.; and their N-oxides, tautomers, stereochem. isomeric forms thereof are claimed. The compds. themselves are also claimed as well as their combinations with other antibacterial agents. Example compound III was prepared by methylation of IV with Me iodide. All the invention compds. were evaluated for their antibacterial activity. Several of the tested compds. exhibited good antibacterial activity.

654654-88-3P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological Study); PREP (Preparation); USES

(drug candidate; preparation of quinoline derivs. as antibacterial agents useful in the treatment of bacterial infection)

RN 654654-88-3 CA

CN 3-Quinolinebutanaminium, 6-bromo- γ -hydroxy-2-methoxy-N,N,N-trimethyl- γ ,8-diphenyl-, iodide (1:1), $(\gamma R, \delta R)$ -rel- (CA INDEX NAME)

Relative stereochemistry.

• I-

REFERENCE COUNT:

5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 43 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 146:121844 CA

TITLE:

Ouinoline derivatives as antibacterial agents and their preparation, pharmaceutical compositions and use in the treatment of bacterial infections

INVENTOR(S): Andries, Koenraad Jozef Lodewijk Marcel; Koul, Anil;

Guillemont, Jerome Emile Georges; Motte, Magali

Madeleine Simone

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.

SOURCE: PCT Int. Appl., 88pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PAT	ENT I	NO.			KIN	D	DATE			APPL	ICAT	ION I	NO.		D	ATE	
WO	2007	0004	36		A1		2007	0104		WO 2	006-	EP63.	556		2	0060	526
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		GE,	GH,	GM,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP,
		KR,	ΚZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,
		MW,	MX,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,	RU,
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	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,
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		GM,	KΕ,	LS,	MW,	ΜZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
					RU,												
	2006															0060	
	2612															0060	526
EΡ	1898															0060	
	R:						CZ,										
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			HR,														
	2008						2008					5188				0060	
	2008											82				0071	
IN	2008	DNOO.	509		A		2008	8080		IN 2	008-	DN50	9		2	0080	118

NO 2008000481 A 20080229 NO 2008-481 20080125 KR 2008028460 A 20080331 KR 2008-702248 20080128 CN 101252928 A 20080827 CN 2006-80031352 20080228 PRIORITY APPLN. INFO:: EP 2005-105769 A 20050628 MO 2006-EP63556 W 20060626

OTHER SOURCE(S): MARPAT 146:121844

GT

- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- Use of a compound for the manufacture of a medicament for the treatment of a bacterial infection provided that the bacterial infection is other than a Mycobacterial infection, said compound being a compound of formula I or II a pharmaceutically acceptable acid or base addition salt thereof, a stereochem. isomeric form thereof, a tautomeric form thereof or a N-oxide form thereof. Compds. of formula I and II wherein R1 is H, halo, haloalkyl, CN, OH, (un) substituted aryl, (un) substituted heterocyclyl, (un) substituted alkyl, etc,; p is 1, 2, 3, and 4; R2 is H, OH, mercapto, alkyloxy(alkyloxy), alkylthio, etc.; R3 is (un)substituted aryl and (un) substituted heterocyclyl; R4 and R5 are independently H, (un) substituted alkyl, benzyl; R4R5 together with N may forma a heterocycle; R6 is H, halo, haloalkyl, alkoxy, (un) substituted aryl, (un) substituted alkyl, etc.; r is 1, 2, 3, 4, and 5; R7 is H, (un) substituted alkyl, (un) substituted aryl and (un) substituted heterocyclyl; R8 is H, and (un) substituted alkyl, R9 is oxo; R8R9 together may form the radical CH=CH-N=; A is (un)branched C1-6 alkyl; and their pharmaceutically acceptable acid and base salts, stereochem. isomeric forms, tautomeric forms, and N-oxides thereof, are claimed. Several of these compds. are also claimed as such. Further the combination of the above compds. with other antibacterial agents is described. Example compound III was prepared by addition of 3-benzyl-2-methoxy-6-methylquinoline to
 - 1-(dimethylamino)-5-phenyl-3-pentanone. All the invention compds, were evaluated for their antibacterial activity. From the assay, it was determined that compound III exhibited IC90 values in the range of 1.9 37.2 $\mu g/mL$ against various bacteria.
- IT 918518-68-0P
 - RI: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (drug candidate and intermediate; preparation of quinoline derivs, as
 - (drug candidate and intermediate; preparation of quinoline derivs. as antibacterial agents useful in the treatment of bacterial infections)
- RN 918518-68-0 CA CN 3-Ouinolineetha
 - 3-Quinolineethanol, 6-bromo- α -[2-(4-fluorophenyl)ethyl]-2-methoxy- α -[2-[methyl(phenylmethyl)amino]ethyl]- β -phenyl (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 44 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 146:62607 CA TITLE:

Preparation of aminohydroxyphenylbutylquinolines as

antibacterials.

INVENTOR(S): Andries, Koenraad Jozef Lodewijk Marcel; Koul, Anil; Guillemont, Jerome Emile Georges; Pasquier, Elisabeth

CODEN: PIXXD2

Patent

English

Therese Jeanne; Lancois, David Francis Alain Janssen Pharmaceutica N. V., Belg.

PATENT ASSIGNEE(S): SOURCE: PCT Int. Appl., 63pp.

DOCUMENT TYPE:

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION: PATENT NO.

1				
KIND	DATE	APPLICATION	NO.	DATE

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WO	2006																
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		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP,	KR,
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	2005									AU 2	005-	2421	42		2	0051	207
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	2005				A2		2007				005-					0051	
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	1353						2007										
EP	1901						2008				006-						
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IN 2007DN09841 CN 101232884 PRIORITY APPLN. INFO.:	A A	20080118 20080730	CN	2007-DN9841 2006-80028239 2005-105023		20071219 20080201 20050608
PRIORITI APPLN. INFO.:			US	2005-105023 2005-296918 2006-EP62934	A	20050608

Ι

ΙI

OTHER SOURCE(S): MARPAT 146:62607

AB Use of title compds. [I; R1 = H, halo, polyhaloalkyl, alkyl, hydroxyalkyl, alkoxy, Ar, Het; p, q = 1, 2; R2 = alkoxy, alkoxyalkoxy, alkylthio; R3 = alkyl, Ar, Het, Het1; R4, R5 = H, alkyl, benzyl; R4R5N = (substituted) pyrrolidinyl, pyrrolinyl, pyrrolyl, imidazolidinyl, pyrazolidinyl, imidazolinyl, pyrazolinyl, imidazolyl, pyrazolyl, triazolyl, piperidinyl, pyridinyl, piperazinyl, pyridazinyl, pyrimidinyl, pyrazinyl, triazinyl, morpholinyl, thiomorpholinyl; R6 = H, halo, polyhaloalkyl, alkyl, alkoxy, alkylthio; 2 vicinal R6 may = CH:CHCH:CH; R7 = H, alkyl, Ar, Het, Hetl; Ar = (substituted) Ph, naphthyl, acenaphthyl, 1,2-dihydroacenaphthyl, tetrahydronaphthyl; Het = (substituted) piperidyl, pyrrolyl, N-phenoxypiperidyl, pyrazolyl, triazolyl, imidazolyl, furyl, pyridyl, pyrimidyl, pyrazinyl, etc.; Hetl = (substituted) quinolyl, quinoxalinyl, indolyl, benzimidazolyl, benzofuryl, benzothienyl, 2,3-dihydrobenzodioxinyl, etc.; with provisos], for manufacture of a medicament for treatment of bacterial infection is claimed. Thus, a diastereomer of title compound (II) (preparation outlined) showed an IC90 = 10.8 µg/mL against Streptococcus mutans ATCC33402. 916800-41-4P RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic

preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(claimed compound; preparation of aminohydroxyphenylbutylquinolines as antibacterials)

RN 916800-41-4 CA

CN 3-Quinolineethanol, 6-bromo- α -(2,4-difluorophenyl)- α -[2-[ethyl(phenylmethyl)amino]ethyl]-2-methoxy-β-phenyl- (CA INDEX NAME)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 45 OF 67 CA COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 146:45403 CA

TITLE: Process for preparing (αS, βR) -6-bromo-α-[2-

(dimethylamino)ethyl]-2-methoxy- α -(1-

naphthalenyl)-β-phenyl-3-quinolineethanol

Porstmann, Frank Ralf; Horns, Stefan; Bader, Thomas INVENTOR(S): PATENT ASSIGNEE(S): Janssen Pharmaceutica N. V., Belg.

SOURCE: PCT Int. Appl., 34pp.

CODEN: PIXXD2 Patent.

DOCUMENT TYPE: LANGUAGE: Enalish

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

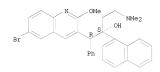
PAT	TENT :	NO.			KIN	D :	DATE			APPL	ICAT	ION I		DATE				
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AU	2006	2512	8 0		A1		2006	1130		AU 2	006-	2512	8 0		2	0060	522	
CA	2606	675			A1		2006	1130		CA 2	006-	2606	675		2	0060	522	
EP	1888	604			A1		2008	0220		EP 2	006-	7552	75		2	0060	522	
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		BA,	HR,	MK,	YU													

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JP 2008545675
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                          Α
                                             IN 2007-DN9746
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     NO 2007006542
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                                 20071219
                                                                     20071219
PRIORITY APPLN. INFO.:
                                             EP 2005-104482
                                                                    20050525
                                             WO 2006-EP62502
                                                                    20060522
OTHER SOURCE(S):
                         CASREACT 146:45403; MARPAT 146:45403
    The present invention relates to a process for isolating
     (αS, βR)-6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxy-
     α-(1-naphthalenyl)-β-phenyl-3-quinolineethanol from a mixture of
     stereoisomeric forms of 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxy-
     \alpha-(1-naphthalenyl)-\beta-phenyl-3-quinolineethanol (I) by optical
     resolution with chiral 4-hydroxydinaphtho[2,1-d:1',2'-
     f][1,3,2]dioxaphosphepin 4-oxide or a derivative thereof, in particular
     (11bR)-4-hydroxydinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin 4-oxide, as
     resolution agent. I was prepared by reacting
     3-(dimethylamino)-1'-propionaphthone with
     3-benzyl-6-bromo-2-methoxyquinoline followed by treatment with HOAc/THF.
     916329-20-9
     RL: NUU (Other use, unclassified); USES (Uses)
        (preparation of (±)-quinolineethanol derivative and isolation of
        (αS, βR)-derivative using chiral dioxaphosphepin 4-oxide)
     916329-20-9 CA
RN
CN
     3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxy-
     \alpha-1-naphthalenyl-\beta-phenyl-, (\alphaS,\betaR)-, compd. with
     (11bR)-dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin 4-oxide (1:1) (CA
     INDEX NAME)
```

CM :

CRN 843663-66-1 CMF C32 H31 Br N2 O2

Absolute stereochemistry. Rotation (-).



CM 2

CRN 681152-46-5 CMF C20 H13 O3 P



OS.CITING REF COUNT: THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD 2 (4 CITINGS)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 46 OF 67 CA COPYRIGHT 2009 ACS on STN 146:27293 CA

ACCESSION NUMBER:

TITLE:

SOURCE:

Conformational analysis of R207910, a new drug

candidate for the treatment of tuberculosis, by a combined NMR and molecular modeling approach AUTHOR(S): Gaurrand, Sandrine; Desjardins, Stephanie; Meyer,

Christophe; Bonnet, Pascal; Argoullon, Jean-Michel; Oulyadi, Hassan; Guillemont, Jerome

CORPORATE SOURCE: Johnson and Johnson Pharmaceutical Research and

Development, Val de Reuil, 27106, Fr.

Chemical Biology & Drug Design (2006), 68(2), 77-84

CODEN: CBDDAL; ISSN: 1747-0277

PUBLISHER: Blackwell Publishing Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

R207910 is an enantiomeric compound from a new class of antimycobacterial agents, the diarylquinolines. As enantiospecific interaction is required for biol. activity, we have undertaken a combined NMR and mol. modeling study to gain new insights into its conformation in solution and its absolute configuration. A conformational anal, using a Monte-Carlo method has been performed on each of the four possible stereomers of this compound leading to the identification of their most stable conformation. Addnl. ab initio calcn. was performed with emphasis on the strength of the observed intramol. hydrogen bond. Simultaneously, a complete structural identification has been carried out by a set of monodimensional and bidimensional 1H-13C-NMR expts. Determination of inter-proton distances has been achieved by a series

of 1H-1H ROESY NMR expts. with different mixing times followed by a volume quantification of the correlations peaks. These exptl. data were compared with the theor. distances obtained from the conformational anal. The remarkable match shows that R207910 adopts one of the low-energy conformations predicted by mol. modeling and belongs to the (RS, SR) couple of diastereoisomers. A posteriori validation of our approach has been performed by X-ray structure determination that concluded for the RS configuration.

843663-66-1, R207910

RL: PRP (Properties)

(conformational anal. of R207910, new drug candidate for treatment of

tuberculosis, by combined NMR and mol. modeling approach)

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R) - (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS

RECORD (11 CITINGS)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 47 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 145:448655 CA

TITLE: Combinations of R207910 with drugs used to treat

multidrug-resistant tuberculosis have the potential to

shorten treatment duration

AUTHOR(S): Lounis, Nacer; Veziris, Nicolas; Chauffour, Aurelie; Truffot-Pernot, Chantal; Andries, Koen; Jarlier,

Vincent

CORPORATE SOURCE: Laboratoire de Bacteriologie, Faculte de Medecine

Pitie-Salpetriere, Groupe Hospitalier

Pitie-Salpetriere, Universite Pierre et Marie Curie

Paris 6, Paris, Fr.

Antimicrobial Agents and Chemotherapy (2006), 50(11),

3543-3547

CODEN: AMACCO; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal LANGUAGE: English

English AB The objective of the present study was to identify the optimal R207910-containing regimen to administer to patients who cannot receive rifampin (RIF) and isoniazid (INH) because of multidrug-resistant tuberculosis (MDR-TB), concomitant use of antiretroviral drugs, or toxicity. Mice were infected i.v. with 5 + 106 CFU of the H37Rv strain and treated five times per wk with R207910 alone or various combinations of R207910 with the second-line drugs amikacin (AMK), pyrazinamide (PZA), moxifloxacin (MXF), and ethionamide (ETH). All R207910-containing regimens were significantly more active than the non-R207910-containing regimens after 1 mo of therapy. When given for 2 mo, R207910 alone was more active than the WHO standard first-line regimen RIF-INH-PZA. When R207910 was combined with second-line drugs, the combinations were more active than the currently recommended regimen of MDR-TB AMK-ETH-MXF-PZA, and culture negativity of both the lungs and spleen was reached after 2 mo of treatment in almost every case.

SOURCE:

IT 843663-66-1, R207910

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(combinations of R207910 with drugs used to treat multidrug-resistant tuberculosis)

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: 25 THERE ARE 25 CAPLUS RECORDS THAT CITE THIS

RECORD (25 CITINGS)

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 48 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 145:372598 CA

TITLE: Genetic basis for natural and acquired resistance to

the diarylquinoline R207910 in mycobacteria
AUTHOR(S): Petrella, Stephanie; Cambau, Emmanuelle; Chauffour,

Aurelie; Andries, Koen; Jarlier, Vincent; Sougakoff,

Wladimir

CORPORATE SOURCE: Laboratoire de Recherche Moleculaire sur les Antibiotiques, LRMA INSERM U655, AP-HP CHU

Pitie-Salpetriere, Universite Pierre et Marie Curie,

Paris, Fr.
SOURCE: Antimicrobial Agents and Chemotherapy (2006), 50(8),

2853-2856

CODEN: AMACCO: ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal LANGUAGE: English

AB The atpE gene encoding the subunit c of the ATP synthase of Mycobacterium tuberculosis, the target of the new diarylquinoline drug R207910, has been sequenced from in vitro mutants resistant to the drug. The previously reported mutation A63P and a new mutation, 166M, were found. The genetic diversity of atpE in 13 mycobacterial species was also investigated, revealing that the region involved in resistance to R207910 is conserved, except in Mycobacterium xenopi in which the highly conserved residue Ala63 is replaced by Met, a modification that may be associated with the natural resistance of M. xenopi to R207910.

IT 843663-66-1, R207910

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(genetic basis for natural and acquired resistance to diarylquinoline

R207910 in mycobacteria)

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS

RECORD (18 CITINGS)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 49 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 145:103574 CA

TITLE: Preparation of quinoline derivatives and their use as mycobacterial inhibitors

INVENTOR(S): Koul, Anil; Andries, Koenraad Jozef Lodewijk Marcel

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.

SOURCE: Can. Pat. Appl., 62 pp. CODEN: CPXXEB

DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT NO.					KIN	D	DATE			APPL	ICAT	DATE							
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CA	2529	265			A1			20060624 CA 2005-2529265							20051206				
KR	2006	0734	16		A			20060628 KR 2005-49439							20050609				
BG	1091)9180 A				20060630 BG 2005-109180								20050609					
JP	JP 2006182755 A					20060713 JP 2005-170052									20050609				
EE 200500033 A						20060815 EE 2005-33 200512										205			
AU	AU 2005242138 A:						2006	0713		AU 2	20051207								
US	US 20060142279 A1						2006	0629		US 2	005-	2969	92		2	0051	208		
WO	WO 2006067048			A1		2006	0629		WO 2	005-	EP56	594		2	20051208				
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GT

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MX	2005	0134	13		A	A 20061110 MX 2005-13413									2	20051208					
EP	1830		A1		2007	0912		EP	2005-	8158		20051208									
	R:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE	, ES,	FI,	FR,	GB,	GR,	HU,	IE,				
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		BA,	HR,	MK,	YU																
CN	1010	8760	8		A		2007	1212		CN	2005-	8004		20051208							
NZ	5554	60			A		2008	1128		NZ	2005-	5554		20051208							
LV	1346	9			В	B 20070120					2005-	161		20051209							
ZA	2007	0051	60		A		2008	0925		ZA	2007-	5160		20070622							
IN	2007	DN05	213		A		2007	0817		IN	2007-	DN52	13		2	0070	706				
NO	2007	0038	23		A		2007	0723		NO	2007-	3823			2	0070	723				
PRIORITY	Y APP	LN.	INFO	. :						EP	2004-	7852	9		A 2	0041	224				
										EP	2005-	1050	08		A 2	0050	608				
										WO	2005-	EP56	594		W 2	0051	208				
OTHER SOURCE(S):						PAT	145:	1035	74												

- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- The title compds. [I or II; R1 = H, halo, haloalkyl, CN, etc.; p = 0-4; R2 AB = H, OH, thio, alkoxy, etc.; R3 = alkyl, aryl, aralkyl, heteroaryl, heteroarylalkyl; q = 0-4; R4, R5 = H, alkyl, CH2Ph; or NR4R5 = pyrrolidinyl, imidazolyl, triazolyl, etc.; R6 = H, halo, haloalkyl, etc.; or two vicinal R6 may be taken together to form CH:CHCH:CH; r = 0-5; R7 = H, alkyl, aryl, heteroaryl; R8 = H, alkyl; R9 = oxo; or R8 and R9 together form NCH: CHI which are useful for the treatment of mycobacterial diseases, particularly those diseases caused by pathogenic mycobacteria such as Mycobacterium tuberculosis, M. bovis, M. avium and M. marinum, were prepared In particular, compds. are claimed in which, independently from each other, R1 = Br, p = 1, R2 = alkyloxy, R3 = (un)substituted naphthyl or Ph, q = 1, R4 and R5 each independently = H, Me or Et, R6 = H, r = 0-1 and R7 = H. E.g., a multi-step synthesis of III which showed MIC of 0.34 μg/mL and pIC50 of 8.5 against M. tuberculosis and M. smegmatis, resp., was given. Also claimed is a composition comprising a pharmaceutically acceptable carrier and, as active ingredient, a therapeutically effective amount of the claimed compds. I, the use of the claimed compds. or compns. for the manufacture of a medicament for the treatment of mycobacterial diseases and a process for preparing the claimed compds. 654653-59-5P
 - RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
- (preparation of quinolines as mycobacterial inhibitors) RN 654653-59-5 CA
- CN 3-Ouinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxyα, β-diphenvl-, (αR, βS)-rel- (CA INDEX NAME)

Relative stereochemistry.

(3 CITINGS)

1921-1926

Journal

English

3 L8 ANSWER 50 OF 67 CA COPYRIGHT 2009 ACS on STN 144:484498 CA

ACCESSION NUMBER:

OS.CITING REF COUNT:

TITLE:

In vitro and in vivo activities of rifampin, streptomycin, amikacin, moxifloxacin, R207910, linezolid, and PA-824 against Mycobacterium ulcerans Ji, Baohong; Lefrancois, Sebastien; Robert, Jerome;

AUTHOR(S): Chauffour, Aurelie; Truffot, Chantal; Jarlier, Vincent Bacteriologie-Hygiene, Faculte de Medecine Pierre et CORPORATE SOURCE: Marie Curie, Universite Paris 6, Paris, Fr.

SOURCE:

PUBLISHER: DOCUMENT TYPE:

LANGUAGE:

Seven antimicrobials were tested in vitro against 29 clin. isolates of Mycobacterium ulcerans. R207910 demonstrated the lowest MIC50 and MIC90, followed by moxifloxacin (MXF), streptomycin (STR), rifampin (RIF), amikacin (AMK), linezolid (LZD), and PA-824. All but PA-824 demonstrated an MIC90 significantly less than the clin. achievable peak serum level. Administered as monotherapy to mice, RIF, STR, AMK, MXF, R207910, and LZD demonstrated some degree of bactericidal activity, whereas PA-824 failed to prevent mortality and to reduce the mean number of CFU in the footpads. Because 4 or 8 wk of treatment by the combinations RIF-MXF, RIF-R207910, and RIF-LZD displayed bactericidal effects similar to those of RIF-STR and RIF-AMK, 3 combinations might be considered as orally administered combined regimens for treatment of Buruli ulcer. Taking into account the cost, potential toxicity, and availability, the combination RIF-MXF appears more feasible for application in the field; addnl. expts. with mice are warranted to define further its activity against M. ulcerans. In

CODEN: AMACCQ; ISSN: 0066-4804

American Society for Microbiology

THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

Antimicrobial Agents and Chemotherapy (2006), 50(6),

843663-66-1, R207910 TT

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antibiotic susceptibility of Mycobacterium ulcerans and effect of combinations with rifampin)

addition, a pilot clin. trial is proposed to test the efficacy of RIF-MXF for

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

treatment of Buruli ulcer.

OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 51 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 144:425198 CA

TITLE: Bactericidal activities of R207910 and other newer antimicrobial agents against Mycobacterium leprae in

mice AUTHOR(S): Ji, Baohong; Chauffour, Aurelie; Andries, Koen;

Jarlier, Vincent

CORPORATE SOURCE: Bacteriologie-Hygiene, Faculte de Medecine Pierre et

Marie Curie, Universite Paris 6, Paris, Fr. SOURCE: Antimicrobial Agents and Chemotherapy (2006), 50(4),

1558-1560

CODEN: AMACCQ; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

As measured by a proportional bactericidal technique in the mouse footpad system, the bactericidal activity against Mycobacterium leprae of R207910 was equal to that of rifapentine, rifampin, or moxifloxacin and significantly greater than those of minocycline, PA-824, and linezolid. These data suggest that R207910 may play an important role in treatment of leprosy.

843663-66-1, R207910

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(bactericidal activities of R207910 and other newer antimicrobial agents against Mycobacterium leprae in mice)

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenv1- β -phenv1-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT:

10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS

RECORD (10 CITINGS)
REFERENCE COUNT: 18 THERE ARE 18 CITED

.8 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 52 OF 67 CA COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 144:365369 CA

ACCESSION NUMBER: TITLE:

INVENTOR(S):

TILE:

Crystal structure of ATP synthase atpE subunit of drug-resistant and drug-sensitive microbacterial

drug-resistant and drug-sensitive microbacterial strains, and drug screening applications Andries, Koenraad Jozef Lodewijk Marcel; Goehlmann, Hinrich Wilhelm Helmut; Neefs, Jean-Marc Edmond

Fernand Marie; Verhasselt, Peter Karel Maria; Winkler, Johann; De Jonge, Marc Rene; Koymans, Lucien Maria

Henricus

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.

SOURCE: PCT Int. Appl., 90 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

	TENT				KIN	D	DATE			APPL					D	ATE	
	2006				A1	-									2	0050	928
	W:						AU,										
							DE,										
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KP,	KR,	KZ,
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,
		NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,
		SK,	SL,	SM,	SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,
		YU,	ZA,	ZM,	zw												
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,
		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG,	BW,	GH,
		GM,	KE,	LS,	MW,	ΜZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
					RU,												
	2005													0050	928		
	2579													0050			
EΡ	1797	115			A1		2007	0620		EP 2	005-	7945:	20		2	0050	928
	R:						CZ,										
		IS,	IT,	LI,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	AL,
		BA,	HR,	MK,	YU												
CN	1010	6539	7		A		2007	1031		CN 2	005-	8004	0762		2	0050	928

JP 2008515395	T	20080515	JP	2007-532910		20050928
IN 2007DN02272	A	20070803	IN	2007-DN2272		20070323
ZA 2007002540	A	20080827	ZA	2007-2540		20070327
NO 2007002237	A	20070625	NO	2007-2237		20070430
PRIORITY APPLN. INFO.:			EP	2004-104720	A	20040928
			US	2004-620500P	P	20041020
			WO	2005-EP54893	W	20050928

The present invention provides the crystal structure and the atomic structure coordinates of the atpE protein which is the C chain of the F0 subunit of FOF1-ATPase complex (ATP synthase) of DARQ J (R207910)-sensitive and DARQ J-resistant strains of Mycobacterium tuberculosis and M. smegmatis. This invention provides an isolated mutant atpE protein and departing from said mutant atpE protein the identification of an ATPase binding domain. This invention also provides related nucleic acids, vectors, host cells, pharmaceutical compns. and articles of manufacture This invention further provides methods for determining whether a test compound interacts with an atpE protein, i.e. with the ATPase binding domain of the present invention, as well as pharmaceuticals compns. comprising said test compound, in particular as antimicrobials, more particular as antimycobacterial agent, even more particular for treating tuberculosis in a subject.

843663-66-1, R207910

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(crystal structure of ATP synthase atpE subunit of drug-resistant and drug-sensitive microbacterial strains, and drug screening applications) 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD 1 (1 CITINGS)

REFERENCE COUNT: THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 53 OF 67 CA COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 144:51462 CA

TITLE:

RN

INVENTOR(S):

PATENT ASSIGNEE(S): SOURCE:

Preparation of aminohydroxyaralkylquinolines for the treatment of drug resistant mycobacterial diseases Andries, Koenraad Jozef Lodewijk Marcel; Van Gestel, Jozef Frans Elisabetha Janssen Pharmaceutica N.V., Belg.

PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005117875 W: AE, AG, AI CN, CO, CR GE, GH, GR LC, LK, LR NG, NI, NC SL, SM, SS ZA, ZM, ZM	A1 , AM, AT, , CU, CZ, , HR, HU, , LS, LT, , NZ, OM, , TJ, TM,	20051215 AU, AZ, DE, DK, ID, IL, LU, LV, PG, PH, TN, TR,	WO 2005-EP52371 BA, BB, BG, BR, BW, BY, BY, BM, DZ, EC, EE, EG, ES, IN, IS, JP, KE, KG, KM, MA, MD, MG, MK, MN, MW, PL, PT, RO, RU, SC, SD, TT, TZ, UA, UG, US, UZ,	20050524 BZ, CA, CH, FI, GB, GD, KP, KR, KZ, MX, MZ, NA, SE, SG, SK, VC, VN, YU,
AZ, BY, KO EE, ES, FI RO, SE, SI MR, NE, SI	, KZ, MD, , FR, GB, , SK, TR, , TD, TG	RU, TJ, GR, HU, BF, BJ,	NA, SD, SL, SZ, TZ, UG, TM, AT, BE, BG, CH, CY, IE, IS, IT, LT, LU, MC, CF, CG, CI, CM, GA, GN,	CZ, DE, DK, NL, PL, PT, GQ, GW, ML,
AU 2005249231	A1	20051215	AU 2005-249231 CA 2005-2566544	20050524
CA 2566544	A1	20051215	CA 2005-2566544	20050524
EP 1753427	A1	20070221	EP 2005-743054	20050524
EP 1753427				
			DK, EE, ES, FI, FR, GB,	
		MC, NL,	PL, PT, RO, SE, SI, SK,	TR, AL, BA,
HR, LV, ME	, YU			
CN 1976704	A	20070606	CN 2005-80017016 BR 2005-10414 JP 2007-513922 AT 2005-743054 ES 2005-743054	20050524
BR 2005010414	A	20071023	BR 2005-10414	20050524
JP 2008500992	T	20080117	JP 2007-513922	20050524
AT 390925	T	20080415	AT 2005-743054	20050524
ES 2306146	Т3	20081101	ES 2005-743054	20050524
IN 2006DN06315	A	20070831	IN 2006-DN6315	20061027
MX 2006013888	A	20070126	MX 2006-13888	20061128
KR 2007017393	A	20070209	KR 2006-724974	20061128
US 20070249667	A1	20071025	US 2006-569681	20061128
NO 2006006041	A	20070227	NO 2006-6041	20061228
PRIORITY APPLN. INFO.:			NO 2006-6041 EP 2004-102402	A 20040528
			EP 2005-743054	
			WO 2005-EP52371	
OTHER SOURCE(S):	MARPAT	144:5146		

$$(R^{1})_{p} \xrightarrow{R^{7}} OH \xrightarrow{NR^{4}R^{5}} I$$

$$(R^{1})_{p} \xrightarrow{NR^{7}} OH \xrightarrow{NR^{4}R^{5}} QH \xrightarrow{NR^{4}R^{5}} QH$$

$$(R^{1})_{p} \xrightarrow{NR^{4}R^{5}} QH \xrightarrow{NR^{4}R^{5}} QH$$

AB Use of title compds. [I, II; RI = H, halo, haloalkyl, cyano, OH, aryl, heterocyclyl, alkyl, alkoxy, alkylthio, alkoxyalkyl, etc.; p = 1-4; R2 = H, OH, SH, alkoxy, alkylthio, alkylamino, etc.; R3 = alkyl, aryl, heterocyclyl, aralkyl, heterocyclylalkyl; q = 0-4; R4, R5 = H, alkyl, PhCH2; R4R5N = (substituted) pyrrolidinyl, imidazolyl, morpholinyl, thiomorpholinyl, pyrazinyl, etc.; R6 = H, halo, haloalkyl, OH, aryl, alkyl, alkoxy, alkylthio, aralkyl, etc.; 2 vicinal R6 = CR:CHCH:CG:CH; m = 1-5; R7 = H, alkyl, aryl, heterocyclyl; R8 = H, alkyl; R9 = O; R8R9 = NCH:CH] for preparation of a medicament for treatment of an infection with a drug resistant Mycobacterium strain is claimed. Title compds. showed min. inhibitory concns. of 0.06-0.12 mg/L against isoniazid-resistant M. tuberculosis.

IT 654653-58-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminohydroxyaralkylquinolines for the treatment of drug resistant mycobacterial diseases)

RN 654653-58-4 CA

CN 3-Quinolineethanol, 6-bromo-α-[2-(dimethylamino)ethyl]-2-methoxyα,β-diphenyl-, (αR,βR)-rel- (CA INDEX NAME)

Relative stereochemistry.

OS.CITING REF COUNT: 1.1 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS

RECORD (11 CITINGS)

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 1 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 54 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 143:325675 CA

TITLE: Research advances: New weapon in war on TB

AUTHOR(S): King, Angela G.

CORPORATE SOURCE: Wake Forest University, Winston-Salem, NC, 27109, USA SOURCE: Journal of Chemical Education (2005), 82(8), 1114-1115

CODEN: JCEDA8; ISSN: 0021-9584

PUBLISHER: Journal of Chemical Education, Dept. of Chemistry DOCUMENT TYPE: Journal

LANGUAGE: English

The concerted efforts of the researchers from Johnson & Johnson Pharmaceutical Research and Development, the Swedish Institute for Infections Disease Control and The Pitie-Salpetriere School of Medicine revealed a new anti-tuberculosis (TB) compound by testing prototypes of different chemical series in a whole cell assav against Mycobacterium smeamatis. The R207910 has a potent early bactericidal activity in the nonestablished infection murine TB model. It attacks a different target from existing anti-TB drugs, inhibiting ATP synthase. Shutting down ATP synthase may result in ATP depletion and imbalance in pH homeostasis. Both of these factors lead to decreased survival for the target microorganism. The specificity of R207910 against mycobacteria is due to differences in ATP synthase sequences in eukaryotes and bacteria.

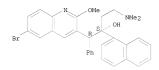
843663-66-1, R 207910

RL: BSU (Biological study, unclassified); DMA (Drug mechanism of action); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (discovery of anti-TB compound)

843663-66-1 CA RN

3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy-CN α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 55 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 143:259311 CA

TITLE: New drugs being developed for the treatment of

tuberculosis

AUTHOR(S): Doggrell, Sheila A. CORPORATE SOURCE: School of Nursing, Auckland University of

Technology-Akoranga Campus, Auckland, N. Z.

SOURCE: Expert Opinion on Investigational Drugs (2005), 14(7),

917-920

CODEN: EOIDER; ISSN: 1354-3784

PUBLISHER: Ashley Publications Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

A review. More than one-third of the world is infected with tuberculosis (TB) and 5000 people die of TB everyday. Of the many diarylquinolones shown to be effective at inhibiting the multiple-cycle growth of Mycobacterium tuberculosis, R-207910 was the most active and was chosen as the lead compound In the nonestablished infection mouse TB model, a single dose of R-207910 50 mg/kg had a bacteriostatic effect, and a bactericidal effect was observed at 100 mg/kg. In the established infection mouse model, treatment was started 12-14 days after infection, and when added to the triple therapy of isoniazid, rifampin, and pyrazinamide or substituted for any component of the triple therapy, R-207910 increased the effectiveness. As ethambutol is chemical simple, and only has modest potency in treating TB, it was considered to be amenable to optimization by combinatorial chemical, and from the analogs synthesized that inhibited the growth of M. tuberculosis, SQ-109 was eventually selected as the lead compound for further testing. In female mice infected with M. tuberculosis H37Rv by tail-vein injection, treatment with SQ-109 25 mg orally initiated 20 days later for 5 days/wk for 4 wk reduced the counts by 1.87 log units, which was slightly more than with ethambutol 100 mg (1.67 log units). These results indicate that exciting new drugs are under development for the treatment of TB.

IT 843663-66-1, R 207910

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(new drugs being developed for treatment of tuberculosis)

RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 56 OF 67 CA COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 143:229731 CA

TITLE: Preparation of aminohydroxyalkylquinolines as

mycobacterial inhibitors

INVENTOR(S): Guillemont, Jerome Emile Georges; Pasquier, Elisabeth

Therese Jeanne; Lancois, David Francis Alain Janssen Pharmaceutica N.V., Belg. PATENT ASSIGNEE(S):

SOURCE: PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PA:	TENT :	NO.			KIN	D	DATE			APF	LICA	LION	NO.		D.	ATE	
MO	2005	0754	28				2005	0818		WΟ	2005	-EP50	375		2	0050	128
110											, BG						
											EC						
											, JP						
											, MK						
											, SC						
											, UZ						
	RW.										, SL						
											, BE						
											. IT						
											, CI						
			NE,				,	,	,	-	,	,	,	,	- 2.7	,	,
AU	2005						2005	0818		AU	2005	-2100	36		2	0050	128
	2554										2005						
EP	1713	776														0050	
EP	1713	776			В1		2008	0514									
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GF	, IT	LI,	LU,	NL,	SE,	MC,	PT,
		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL	, TR	BG,	CZ,	EE,	HU,	PL,	SK,
		BA,	HR,	IS,	YU												
CN	1910	154			A		2007	0207		CN	2005	-8000	3129		2	0050	128
BR	2005	0073	12		A		2007	0626		BR	2005	-7312			2	0050	128
JP	2007 3953 2306	5196	87		T		2007				2006		88		2	0050	128
AT	3953	36			T		2008				2005					0050	
ES	2306	098			Т3		2008	1101		ES	2005	-7078	86		2	0050	128
NZ	5476	14			A		2009	0430			2005					0050	
US	2007	0299	106		A1		2007	1227		US	2006	-4221	52		2	0060	
KR	2007	0045	97		A		2007	0109			2006					0060	
IN	2006	DN 04	331		A		2007	0713			2006						
MX	5476 2007 2007 2006 2006 2006	0085	96		A		2006	0828			2006				2	0060	728
ZA	2006	0062	91		A		2008	0227			2006					0060	
NO	2006	0038	21		A		2006	0828			2006						
ORIT:	Y APP	LN.	INFO	.:							2004						
											2005						
											2005				W 2	0050	128
ER S	DURCE	(S):			CAS	REAC	T 14	3:22	9731	; M	IARPA'	r 143	:229	731			

GI

$$(R^1)_p \xrightarrow[R]{R^7} (M^6)_m \xrightarrow[R]{R^4R^5}$$

AB Title compds. [I, Rl = H, halo, haloalkyl, cyano, OH, Ar, Het, alkyl, alkoxy, alkylthio, alkoxyalkyl, etc.; p = 1-3; n, q = 0-4; R2 = H, halo, alkyl, OH, SH, (substituted) alkoxy, etc.; R3 = alkyl, Ar, Het, etc.; R4, R5 = H, alkyl, PhCH2; R4RSN = pyrrolidinyl, pyrrolyl, pyrrolinyl, imidazolidinyl, pyrazolidinyl, etc.; R6 = H, halo, haloalkyl, OH, Ar, alkyl, alkoxy, alkylthio, alkoxyalkyl, alkylthioalkyl, etc.; 2 vicinal R6 = atoms to form a fused benzene ring; R7 = H, alkyl, Ar, Het; Ar = (substituted) Ph, naphthyl, acenaphthyl, tetrahydronaphthyl; Het = (substituted) N-phenoxypiperidinyl, pyrrolyl, pyrazolyl, imidazolyl, furyl, thienyl, oxazolyl, isoxazolyl, thiazolyl, jsothiazolyl, triazolyl, pyridinyl, pyrimdinyl, pyrazinyl, pyridinyl, pyrimdinyl, benzofuryl, benzothienyl, etc.], were prepared Thus, title compound (II) (preparation given) showed a pIC50 = 6.5 against M. smegmatis.

IT 862543-33-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminohydroxyalkylquinolines as mycobacterial inhibitors) ${\tt RN} = 862543-33-7 \;\; {\tt CA}$

CN 6-Quinolineethanol, 2-chloro- α -[2-(dimethylamino)ethyl]-3-ethyl- α -(3-fluorophenyl)- β -phenyl-, (α R, β S)-rel- (CA INDEX NAME)

Relative stereochemistry.

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD

(5 CITINGS)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 57 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 143:194012 CA

TITLE: Preparation of oxazinylbenzylquinolines as

mycobacterial inhibitors.

INVENTOR(S): Guillemont, Jerome Emile Georges; Pasquier, Elisabeth

Therese Jeanne

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.

SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PA:	TENT :	NO.			KIN	D	DATE			APPL	ICAT	ION I	NO.		D.	ATE	
WO	2005	0709									005-					0050	121
				AL.							BG,						
											EC,						
											JP,						
											MK,						
											SC,						
											UZ,						
	RW:										SL,						
											BE,						
											IT,						
											CI,						
		MR.	NE.	SN.	TD,	TG											
AU	2005	2063	30		A1		2005	0804		AU 2	005-	2063	30		2	0050	121
CA	2553	266			A1		2005	0804 1018		CA 2	005-	2553:	266		2	0050	121
EP	1711	492			A1		2006	1018		EP 2	005-	7015	86		2	0050	121
EP	1711	492			B1		2008	0416									
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT
		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	PL,	SK
		BA,	HR,	IS,	YU												
CN	1910	177			A		2007	0207		CN 2	005-	8000	2679		2	0050	121
	2005				A		2007				005-					0050	
	2007		75		T T T3		2007	0712		JP 2	006-	5501	74		2	0050	121
	3924				T		2008				005-					0050	
	2306				Т3		2008				005-					0050	
	2007		895		A1		2007			US 2	006-	5963:	86		2	0060	612
	7338				B2		2008										
	2006				A		2006				006-						
	2006				A		2006				006-					0060	
	2006				A		2007				006-					0060	
	2006				A		2007				006-					0060	
	2006				A		2006	0822			006-					0060	
ORIT	Y APP	LN.	INFO	.:							004-						
											005-				W 2	0050	121
		/C1 .			CASI	DEAC	T 14	3:19	4012	 MA 	DDAT	143	· 194	012			

Page 80

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compde. [I, II; Rl = H, halo, haloalkyl, cyano, OH, Ar, Het, alkyl, alkoxy, alkylthio, alkyloxyalkyl, alkylthioalkyl, aralkyl, diarylalkyl; p = 1-4; R2 = H, OH, SH, alkoxy, alkoxyalkoxy, alkylthio, mono or dialkylamino, piperidinyl, morpholino, thiomorpholino, (alkyl)piperazinyl; R3 = alkyl, Ar, aralkyl, Het, Het-alkyl; R4 = H, alkyl, benzyl; R5 = H, halo, haloalkyl, OH, Ar, alkyl, alkoxy, alkylthio, alkoxyalkyl, alkythioalkyl, Aralkyl, diarylalkyl; 2 vicinal R5 = atoms to form a fused Ph ring; n = 1-5; R6 = H, alkyl, Ar, Het; R7 = H, alkyl; R8 = O; or R7R8 = CH:CHN:; Z = CH2, CO; Ar = (substituted) Ph, naphthyl, acenaphthyl, tetrahydronaphthyl; Het = (substituted) N-phenoxypiperidinyl, pyrrolyl, pyrazolyl, imidazolyl, furyl, thienyl, oxazolyl, isoxazolyl, benzothiazolyl, benzothiayl, etc.], were prepared Thus, title compound (III) (prepared via cyclocondensation of paraformaldehyde with the corresponding aminoalc.) showed pICSO = 8.5 acainst M. smeematts ATCGOT.

IT 916800-41-4

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of oxazinylbenzylquinolines as mycobacterial inhibitors)

RN 916800-41-4 CA

CN 3-Quinolineethanol, 6-bromo-α-(2,4-difluorophenyl)-α-[2-[ethyl(phenylmethyl)amino]ethyl]-2-methoxy-β-phenyl- (CA INDEX NAME)

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 58 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 143:193916 CA

TITLE: Preparation of (aminohydroxyalkyl) guinolines as

mycobacterial inhibitors

INVENTOR(S): Guillemont, Jerome Emile Georges; Pasquier, Elisabeth

Therese Jeanne; Lancois, David Francis Alain

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.

SOURCE: PCT Int. Appl., 88 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

	TENT																
	2005																
											, BG,						
											, EC,						
		GE.	GH,	GM,	HR,	HU,	ID,	IL,	IN.	IS	, JP,	KE.	KG.	KP.	KR,	KZ,	LC,
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG	, MK,	MN,	MW,	MX,	MZ,	NA,	NI,
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU	, SC,	SD,	SE,	SG,	SK,	SL,	SY,
		TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US	, UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD	, SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
											, BE,						
											, IT,						
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG	, CI,	CM,	GA,	GN,	GQ,	GW,	ML,
		MR,	ΝE,	SN,	TD,	TG											
AU	2005	2059	35		A1		2005	0804		AU	2005-	2059	35		2	0050	121
CA	2553	269			A1		2005	0804		CA	2005-	-2553	269		2	0050	121
EP	1711																
	R:										, IT,						
						FI,	RO,	MK,	CY,	AL	, TR,	BG,	CZ,	EE,	ΗU,	PL,	SK,
		BA,	HR,	IS,	YU												
CN	1909 2005 2007 2007	907			A		2007	0207		CN	2005-	8000	2654		2	0050	121
BR	2005	0070	65		A		2007	0612		BR	2005-	7065			2	0050	121
JP	2007	5187	76		T		2007	0712		JP	2006-	5501	75		2	0050	121
US	2007	0093	478		AΙ		2007	0426		US	2006-	5962	70		2	0060	607
KR	2007	0019	29		A		2007	0104		KK	2006-	0215	5/		2	0060	720
MX	2006	0083	12		A		2006	0929		MX	2006-	8315	1.0		2	0060	721
IN	2006	DNU4	218		A		2007	1110		TIV	2006-	COCC	18		2	0060	721
ZA.	2006	0000	40		A.		2007	1178		MA.	2006-	2740			2	0000	022
PRIORIT					м		2006	0022		INO	2000-	5740 E200	025		n 2	0000	122
FKIOKII	1 APP	DIV.	INFO	• •						WO.	2004-	.0050	271		г 2 w 2	0040	121
OTHER S	OURCE	(S):			CAS	REAC	т 14	3:19							vi 2	0030	121

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. [I, II; Rl = H, halo, haloalkyl, cyano, OH, Ar, Het, etc.; p = 1-3; R2 = H, alkyl, OH, SH, (substituted) alkoxy, etc.; R3 = alkyl Ar, Het, etc.; q = 0-4; X = bond, CH2; R4, R5 = H, alkyl, PhCH2; R4RSN = (substituted) pyrrolidinyl, imidazolyl, thiomorpholinyl, piperazinyl, pyrazolyli, pyrazolidinyl, pyridinyl, etc.; R6 = H, (substituted) phenyl(alkyl); R7 = H, alkyl, Ar, Het; R8 = H, alkyl; R5 = 0; R8R9 = CH:CRN; Ar = (substituted) Ph, naphthyl, acenaphthyl, tetrahydronaphthyl; Het = (substituted) N-phenoxypiperidinyl, pyrrolyl, pyrazolyl, imidazolyl, furyl, pyrimidinyl, indolyl, indazolyl, benzimidazolyl, etc.], were prepared Thus, title compound (III) showed pIC50 = 6.6 against M. smegmatis ATCC607.

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

⁽preparation of (aminohydroxyalkyl)quinolines as mycobacterial inhibitors) RN 861871-52-5 CA

CN 5-Quinolinemethanol, α -(3,5-difluorophenyl)- α -[2-

(dimethylamino)ethyl]-2-methoxy-3-phenyl- (CA INDEX NAME)

OS.CITING REF COUNT:

4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS) REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 59 OF 67 CA COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 143:97278 CA

TITLE: Preparation of quinoline derivatives and their use as mycobacterial inhibitors

INVENTOR(S): Van Gestel, Jozef Frans Elisabetha; Guillemont, Jerome Emile Georges; Venet, Marc Gaston; Poignet, Herve Jean Joseph; Decrane, Laurence Francoise Bernadette;

Vernier, Daniel F. J.; Odds, Frank Christopher PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.

SOURCE: U.S. Pat. Appl. Publ., 31 pp., Cont.-in-part of Appl. No. PCT/EP03/50322.

CODEN: USXXCO DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	ENT				KIN	D	DATE			APPL			NO.			ATE	
	2005		581				2005	0707		US 2						0041	
US	7498	343			B2		2009	0303									
WO	2004	0114	36		A1		2004	0205		WO 2	003-	EP50	322		2	0030	718
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,
		PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	TJ,	TM,	TN,	TR,	TT,
		TZ.	UA,	UG.	US,	UZ,	VC.	VN.	YU,	ZA.	ZM.	ZW					
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,
		KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI.	FR.	GB,	GR.	HU,	IE.	IT.	LU,	MC.	NL,	PT.	RO,	SE.	SI,	SK,	TR.
		BF.	BJ.	CF.	CG.	CI.	CM,	GA.	GN.	GO,	GW.	ML.	MR.	NE.	SN.	TD.	TG
CN	1010						2007										
PRIORITY	APP	LN.								US 2							
										WO 2	003-	EP50	322		A2 2	0030	718
										CN 2	003-	8177	13		A3 2	0030	718
OTHER SC	IER SOURCE(S):					PAT	143:	9727	В								

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

The title compds. [I or II; R1 = H, halo, haloalkyl, CN, etc.; p = 0-4; R2 = H, OH, thio, alkoxy, etc.; R3 = alkyl, aryl, aralkyl, heteroaryl, heteroarylalkyl; q = 0-4; R4, R5 = H, alkyl, CH2Ph; or NR4R5 = pyrrolidinyl, imidazolyl, triazolyl, etc.; R6 = H, halo, haloalkyl, etc.; or two vicinal R6 may be taken together to form CH:CHCH:CH; r = 0-5; R7 = H, alkyl, aryl, heteroaryl; R8 = H, alkyl; R9 = oxo; or R8 and R9 together form NCH:CH] which are useful for the treatment of mycobacterial diseases, particularly those diseases caused by pathogenic mycobacteria such as Mycobacterium tuberculosis, M. bovis, M. avium and M. marinum, were prepared In particular, compds. are claimed in which, independently from each other, R1 = Br, p = 1, R2 = alkyloxy, R3 = (un)substituted naphthyl or Ph, q = 1, R4 and R5 each independently = H, Me or Et, R6 = H, r = 0-1 and R7 = H. E.g., a multi-step synthesis of III which showed MIC of 0.34 ug/mL and pIC50 of 8.5 against M. tuberculosis and M. smegmatis, resp., was given. Also claimed is a composition comprising a pharmaceutically acceptable carrier and, as active ingredient, a therapeutically effective amount of the claimed compds. I, the use of the claimed compds. or compns. for the manufacture of a medicament for the treatment of mycobacterial diseases and a process for preparing the claimed compds.

654653-59-5P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of quinolines as mycobacterial inhibitors) 654653-59-5 CA RN

3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxyα, β-diphenvl-, (αR, βS)-rel- (CA INDEX NAME)

Relative stereochemistry.

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

3 ANSWER 60 OF 67 CA COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 143:78213 CA

TITLE:

Preparation of cyclohexylalkyl quinolinone and quinoxalinone derivatives as poly(ADP-ribose) polymerase (PARP) inhibitors

INVENTOR(S):

Mabire, Dominique Jean-Pierre; Van Dun, Jacobus Alphonsus Josephus; Somers, Maria Victorina Francisca; Wouters, Walter Boudewijn Leopold

PATENT ASSIGNEE(S): Janssen Pharmaceutica N. V., Belg.

SOURCE: PCT Int. Appl., 59 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT I	40.			KIN	D	DATE				LICAT				D	ATE	
WO	2005	0588	43		A1		2005	0630			2004-				2	0041	118
	W:										, BG,						
											EC,						
											JP.						
											, MK,						
		NO.	NZ.	OM.	PG.	PH.	PL.	PT.	RO.	RU	, sc.	SD.	SE.	SG.	SK.	SL.	SY.
											UZ,						
	RW:										, SL,						
											, BE,						
		EE.	ES.	FI.	FR.	GB,	GR.	HU.	IE.	IS	, IT,	LU.	MC.	NL.	PL,	PT.	RO.
											, CM,						
		NE,	SN,	TD,	TG												
											2004-						
CA	2548	273			A1		2005	0630		CA	2004-	2548	273		2	0041	118
EP	1694	653			A1		2006	0830		EΡ	2004-	8031	92		2	0041	118
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		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL	, TR,	BG,	CZ,	EE,	HU,	PL,	SK,
		HR,	IS,														
CN	1890	225			A		2007	0103		CN	2004-	8003	6656		2	0041	118
BR	2004	0175	71		A		2007	0320		BR	2004-	1757	1		2	0041	118
JP	2007 1512 2009	5138	98		T		2007	0531		JΡ	2006- 2009- 2006-	5434	09		2	0041	118
SG	1512	50			A1		2009	0430		SG	2009-	1548			2	0041	118
US	2009	0042	881		A1		2009	0212		US	2006-	5960	83		2	0060	530
MX	2006	0065	73		A		2006	0/31		MX	2006-	65/3			2	0060	609
											2006-						
	2006										2006-						
	2006		53		A		2006	1018		KR	2006- 2006-	7133	44		2	0060	703
	2006		29		A		2006	0705		NO	2006-	3129			2	0060	705
RIORIT	Y APP	LN.	INFO	.:						EP	2006- 2003-	7891	8		A 2	0031	210
										WO	2004-	DE IO	100		₩ 2	0041	118
THER SO	DURCE	(S):			CAS	REAC	T 14	3:78	213;	MA	RPAT	143:	7821.	3			
I																	

$$\begin{array}{c|c} & & R^2 \\ & & C \\ & & R^3 \end{array}$$

AB Title compds. I in = 0-1; m = 0-1; X = N, CR4; Y = N, CH; Q = NH; O, CO, etc., R1 = alkyl, thienyl; R2 = H or together with R3 may form O; R3 = H, alkyl, OH, etc. or R3 = (CH2)pZ; R4 = H or together with R1 may form (CH=CH)z; p = 0-2; Z = (un)substituted heterocycle) and their pharmaceutically acceptable salts, are prepared and disclosed as inhibitors of poly(ADP-ribose) polymerase (PARF). Thus, e.g., II was prepared by reaction of 3-ethyl-2(HH)-quinolinone with chloro-acetyl chloride followed by coupling with piperidine and subsequent reduction The inhibitory activity of I towards PARF-I was evaluated in scintillation proximity assays and in filtration assays and it was revealed that compds. of the invention displayed inhibitory activity at initial test concess of 10-6 and 10-5 M, resp. I as inhibitors of poly(ADP-ribose) polymerase should prove useful in the treatment of PARF-I mediated disorders. Pharmaceutical compns. comprising I are disclosed.

Ι

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of cyclohexylalkyl quinolinone and quinoxalinone derivs. as poly(ADP-ribose) polymerase (PARP) inhibitors) 855444-77-8 CA

RN 855444-77-8 CA CN 6-Quinolinemethanol, α -cyclohexyl-3-ethyl-2-methoxy- α -[2-(4-methyl-1-c)ierazinvl)ethyl]- (CA INDEX NAME)

$$\begin{array}{c} \text{OH} & \text{NN} & \text{OMe} \\ \text{N} & \text{CH}_2\text{-CH}_2\text{-C} & \text{Et} \end{array}$$

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(3 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 61 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 143:60003 CA

TITLE: Preparation of 6-substituted 2-quinolinones and 2-quinoxalinones as poly(ADP-ribose) polymerase

inhibitors

INVENTOR(S): Mabire, Dominique Jean-Pierre; Guillemont, Jerome Emile Georges; Van Dun, Jacobus Alphonsus Josephus; Somers, Maria Victorina Francisca; Wouters, Walter

Boudewijn Leopold

PATENT ASSIGNEE(S): Janssen Pharmaceutica N. V., Belg. SOURCE: PCT Int. Appl., 48 pp.

PCT Int. Appl., 48 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

											LICAT					ATE	
											2004-					0041	118
	W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BE	, BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	D2	, EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS	JP,	KE,	KG,	KP,	KR,	KZ,	LC,
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG	, MK,	MN.	MW,	MX,	MZ,	NA,	NI,
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU	, sc,	SD,	SE,	SG,	SK,	SL,	SY,
		TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US	, UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW
	RW:	BW,	GH,	GM,	KE,	LS.	MW.	MZ,	NA.	SE	, SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
		AZ.	BY,	KG,	KZ.	MD,	RU.	TJ.	TM.	AI	, BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IS	, IT,	LU,	MC,	NL,	PL,	PT,	RO,
		SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI	, CM,	GA,	GN,	GQ,	GW,	ML,	MR,
		NE,	SN,	TD,	TG												
											2004-						
CA	2546	657			A1		2005	0616		CA	2004-	2546	657		2	0041	118
EP	1709	012			A1		2006	1011		ΕP	2004-	8196	02		2	0041	118
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GF	, IT,	LI,	LU,	NL,	SE,	MC,	PT,
		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	ΑL	, TR,	BG,	CZ,	EE,	HU,	PL,	SK,
			IS,														
CN	1890 2004	224			A		2007	0103		CN	2004-	-8003	5857		2	0041	118
BR	2004	0165	32		A		2007	0109		BR	2004-	-1653	2		2	0041	118
JP	2007	5131	01		T		2007	0524		JΡ	2006-	-5418	30		2	0041	118
SG	1512	49			A1		2009	0430			2009-						
IN	2006	DN03	071		A		2007	0810		IN	2006-	-DN30	71		2	0060	529
US	2007	0129	375		A1		2007	0607		US	2006-	-5960	86		2	0060	530
	2006		55		A		2006	0809		MX	2006-	6255			2	0060	602
											2006-						
					A		2006	0628		NO	2006-	-3028			2	0060	628
ORIT	Y APP	LN.	INFO	. :							2003-				A 2	0031	205
										WO	2004-	EP13	164		W 2	0041	118
HER S	OURCE	(S):			CAS	REAC	T 14	3:60	003;	MA	RPAT	143:	6000	3			

AB The title compds. I (n = 0-2; X = N, CRS; R5 = H or taken together with R1 may form CH:CH:CH:CH:CH; R1 = alky1, thieny1; R2 = H, OH, or taken together with R3 or R4 may form O; R3 = OH, OR8, SR9, etc.; R8 = alky1, alky1carbony1, dialky1aminoalky1; R9 = dialky1aminoalky1; R4 = H, alky1, furany1, etc.; with the provision], useful for the treatment of a PARP mediated disorder, were prepared E.g., a multi-step synthesis of II, starting from I-(4-amino-3-nitropheny1)-2-methy1-l-propanone, was given. The exemplified compds. I were tested in an in vitro assay based on SPA technol. and in an in vitro filtration assay assessing PARP-1 activity (data given). The pharmaceutical composition comprising the compound I is disclosed.

IT 854523-92-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (USes)

(preparation of 6-substituted 2-quinolinones and 2-quinoxalinones as poly(ADP-ribose) polymerase inhibitors)

RN 854523-92-5 CA

CN 2(1H)-Quinolinone, 6-[3-(dimethylamino)-1-hydroxy-1-(2-pyridinyl)propyl]-3-methyl- (CA INDEX NAME)

Me2N-CH2-CH2

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

(2 CITINGS)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 62 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:

143:60002 CA

Preparation of 7-phenylalkyl substituted 2-quinolinones and 2-quinoxalinones as

poly(ADP-ribose) polymerase inhibitors
INVENTOR(S): Mabire, Dominique Jean-pierre; Guillemont,

Mabire, Dominique Jean-pierre; Guillemont, Jerome Emile Georges; Van Dun, Jacobus Alphonsus Josephus; Somers, Maria Victorina Francisca; Wouters, Walter

Boudewijn Leopold

PATENT ASSIGNEE(S): Janssen Pharmaceutica N. V., Belg.

SOURCE: PCT Int. Appl., 55 pp.

TITLE:

CODEN: PIXXD2 Patent

DOCUMENT TYPE: LANGUAGE:

English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
		WO 2004-EP13162	
W: AE, AG, AL,	AM, AT, AU, AZ,	BA, BB, BG, BR, BW,	BY, BZ, CA, CH,
CN, CO, CR,	CU, CZ, DE, DK,	DM, DZ, EC, EE, EG,	ES, FI, GB, GD,
GE, GH, GM,	HR, HU, ID, IL,	IN, IS, JP, KE, KG,	KP, KR, KZ, LC,
LK, LR, LS,	LT. LU. LV. MA.	MD, MG, MK, MN, MW,	MX. MZ. NA. NI.
		RO, RU, SC, SD, SE,	
		UG, US, UZ, VC, VN,	
		NA, SD, SL, SZ, TZ,	
		TM, AT, BE, BG, CH,	
		IE, IS, IT, LU, MC,	
		CG, CI, CM, GA, GN,	
NE, SN, TD,		00, 01, 011, 011, 011,	02, 0, 1,
		AU 2004-295057	20041118
		CA 2004-2546002	
EP 1709011	A1 20061011	EP 2004-819600	20041118
		GB, GR, IT, LI, LU,	
IE, SI, LT,	LV. FI. RO. MK.	CY, AL, TR, BG, CZ,	EE, HU, PL, SK,
HR, IS, YU			
CN 1882549	A 20061220	CN 2004-80034287	20041118
BR 2004016817	A 20070306	BR 2004-16817	20041118
JP 2007513087	T 20070524	JP 2006-540337	20041118
SG 150534	A1 20090330	SG 2009-1198	20041118
JP 2007513087 SG 150534 US 20080249099	A1 20081009	SG 2009-1198 US 2006-595882	20060517
IN 2006DN02810	A 20070803	IN 2006-DN2810	20060518
		MX 2006-5686	
ZA 2006004076	A 20070926	ZA 2006-4076	20060519
KR 2006111532	A 20061027	KR 2006-710200 NO 2006-2892 EP 2003-78650	20060525
NO 2006002892	A 20060809	NO 2006-2892	20060620
PRIORITY APPLN. INFO.:		EP 2003-78650	A 20031120
		WO 2004-EP13162	W 20041118
OTHER SOURCE(S):	CASREACT 143:60	002; MARPAT 143:60002	
GI			

AB The title compds. I [n = 0-2; X = N, CR7; R7 = H or taken together with R1 may form CH:CHCH:CH; R1 = alkyl, thienyl; R2 = H, OH, alkyl, alkylyl or taken together with R3 may form O; R3 = OH, OR10, SR11, etc.; R10 = alkyl, alkylcarbonyl, dialkylaminoalkyl; R11 = dialkylaminoalkyl; R4-R6 = H, halo, trihalomethyl, etc.; with the provision], useful for the treatment of a PARP mediated disorder, were prepared E.g., a multi-step synthesis of II, starting from N-[4-(2-oxo-2-phenylethyl)phenyl]acetamide, was given. The exemplified compds. I were tested in an in vitro assay based on SPA technol, and in an in vitro filtration assay assessing PARP-1 activity (data given). The pharmaceutical composition comprising the compound I is disclosed.

ΙI

T 854398-84-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 7-phenylalkyl substituted 2-quinolinones and 2-quinoxalinones as poly(ADP-ribose) polymerase inhibitors) 854398-84-8 CA

CN 7-Quinolinemethanol, α-[2-(dimethylamino)ethyl]-2-methoxy-3-methylα-phenyl- (CA INDEX NAME)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 63 OF 67 CA COPYRIGHT 2009 ACS on STN

RN

ACCESSION NUMBER: 143:60001 CA

TITLE: Preparation of 6-alkenyl and 6-phenylalkyl substituted

2-quinolinones and 2-quinoxalinones as poly(ADP-ribose) polymerase inhibitors

INVENTOR(S): Mabire, Dominique Jean-pierre; Guillemont, Jerome

Emile Georges; Van Dun, Jacobus Alphonsus Josephus; Somers, Maria Victorina Francisca; Wouters, Walter

Boudewijn Leopold

PATENT ASSIGNEE(S): Janssen Pharmaceutica N. V., Belg.

SOURCE: PCT Int. Appl., 102 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PAT	ENT :	NO.			KIN	D	DATE			APP	LICAT	ION :	NO.		D	ATE	
WO	2005	0542	0.1				2005	0616		WO	2004-	EP13	163		2	0041	118
											, BG,						
											, EC,						
											, JP,						
											MK,						
		NO.	NZ.	OM.	PG.	PH.	PL.	PT.	RO.	RU	, sc,	SD.	SE.	SG.	SK.	SL.	SY
											, UZ,						
	RW:										SL,						
		AZ.	BY.	KG.	KZ.	MD.	RU.	TJ.	TM.	AT	, BE,	BG.	CH.	CY.	CZ.	DE.	DK
											, IT,						
		SE.	SI,	SK,	TR.	BF,	BJ,	CF.	CG,	CI	, CM,	GA,	GN,	GO,	GW,	ML,	MR
		NE.	SN,	TD,	TG												
AU	2004	2950	58		A1		2005	0616		AU	2004-	2950	58		2	0041	118
CA	2546	300			A1		2005	0616		CA	2004-	2546	300		2	0041	118
EP	1687	277			A1		2006	0809		EP	2004-	8196	01		2	0041	118
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PT
											, HU,						
CN	1882	547			A.		2006	1220		CN	2004-	8003	4176		2		
BR	2004	0162	06		A		2006	1226		BR	2004- 2006- 2009-	1620	6		2	0041	
JP	2007	5115	74		T		2007	0510		JΡ	2006-	5403	38		2	0041	
SG	1505	33			A1		2009	0330		SG	2009-	1197			2	0041	
US	2007 2006	0072	842		A1		2007	0329		US	2006-	5958	91		2	0060	518
IN	2006	DN02	813		A		2007	0803		IN	2006-	DN28	13		2	0060	518
MX	2006 2006	0056	87		A		2006	0817		MX	2006- 2006- 2006- 2006-	5687			2	0060	519
ZA	2006	0040	75		A		2007	0926		z_{A}	2006-	4075			2	0060	519
KR	2006	1153	93		A		2006	1108		KR	2006-	7102	01		2	0060	525
	2006				A		2006	0809			2006-					0060	
ORITY	APP	LN.	INFO	. :							2003-						
											2003-						
											2003-						
											2004-				W 2	0041	118
ER SC	URCE	(S):			CAS	REAC	T 14	3:60	001;	MA	RPAT	143:	6000	1			

AB The title compds. I [n = 0-2; X = N, CR^7 , $R^7 = H$ or taken together with R1 may form CH:CHCH:CH; R1 = alkyl, thiophenyl; R2 = H, OH, alkyl, alkylyl or taken together with R3 may form 0; R3 = OH, OR10, SR11, etc.; R10, R11 = CHO, alkyl, alkyl) amino, etc.; R4-R6 = H, halo, trihalomethyl, etc.; with the provision], useful for the treatment of a FARP mediated disorder, were prepared E.g., a multi-step synthesis of II, starting from bromobenzene and 3-methyl-6-quinolinecarboxaldehyde, was given. The exemplified compds. I were tested in an in vitro assay based on SFA technol. and in an in vitro filtration assay assessing PARP-1 activity (data given). The pharmaceutical composition comprising the compound I is disclosed.

ΙI

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 6-alkenyl and 6-phenylalkyl substituted 2-quinolinones and 2-quinoxalinones as poly(ADP-ribose) polymerase inhibitors) $854534-65-9\,$ CA

RN 854534-65-9 CA CN 6-Quinolinemethanol, α -(2,3-dihydro-1,4-benzodioxin-6-y1)-3-ethyl-2-methoxy- α -[2-(1-piperidinyl)ethyl]- (CA INDEX NAME)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 64 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:

142:211496 CA

ACCESSION NUMBER: 142:211490 CA

TITLE: A Diarylquinoline Drug Active on the ATP Synthase of

Mycobacterium tuberculosis

AUTHOR(S): Andries, Koen; Verhasselt, Peter; Guillemont, Jerome; Goehlmann, Hinrich W. H.; Neefs, Jean-Marc; Winkler, Hans; Van Gestel, Jef; Timmerman, Philip; Zhu, Min; Lee, Ennis; Williams, Peter; de Chaffoy, Didier; Huitric, Emma; Hoffner, Sven; Cambau, Emmanuelle; Truffott-Pernot, Chantal; Lounis, Nacer; Jarlier,

Vincent

CORPORATE SOURCE: Johnson & Johnson Pharmaceutical Research and

Development, Beerse, 2340, Belg.

SOURCE: Science (Washington, DC, United States) (2005), 307(5707), 223-227

CODEN: SCIEAS; ISSN: 0036-8075

PUBLISHER: American Association for the Advancement of Science

DOCUMENT TYPE: Journal LANGUAGE: English

AB The incidence of tuberculosis has been increasing substantially on a worldwide basis over the past decade, but no tuberculosis-specific drugs have been discovered in 40 years. We identified a diarylquinoline, R207910, that potently inhibits both drug-sensitive and drug-resistant Mycobacterium tuberculosis in vitro (min. inhibitory concentration 0.06 µg/ml). In mice, R207910 exceeded the bactericidal activities of isoniazid and rifampin by at least 1 log unit. Substitution of drugs included in the World Health Ornanization's first-line tuberculosis

included in the World Health Organization's first-line tuberculosis' treatment regimen (rifampin, isoniazid, and pyrazinamide) with R207910 accelerated bactericidal activity, leading to complete culture conversion after 2 mo of treatment in some combinations. A single dose of R207910 inhibited mycobacterial growth for 1 wk. Plasma levels associated with efficacy in mice were well tolerated in healthy human volunteers. Mutants selected in vitro suggest that the drug targets the proton pump of ATP (ATP) synthase.

IT 843663-66-1, R 207910

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (diarylquinoline drug active on ATP synthase of Mycobacterium

tuberculosis) RN 843663-66-1 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α -1-naphthalenyl- β -phenyl-, (α S, β R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: 209 THERE ARE 209 CAPLUS RECORDS THAT CITE THIS RECORD (211 CITINGS)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 65 OF 67 CA COPYRIGHT 2009 ACS on SIN

ACCESSION NUMBER: 140:163715 CA TITLE: Preparation of

TITLE: Preparation of quinoline derivatives and their use as mycobacterial inhibitors

Guillemont, Jerome Emile Georges; Van Gestel, Jozef Frans Elisabetha; Venet, Marc Gaston; Poignet, Herve

Jean Joseph; Decrane, Laurence Francoise Bernadette;

Vernier, Daniel F. J.

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg. SOURCE: PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

INVENTOR(S):

PAT	ENT	NO.			KIN	D	DATE				ICAT				D	ATE	
WO	2004	0114	36		A1		2004	0205							2	0030	718
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
							MD,										
		PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ΤJ,	TM,	TN,	TR,	TT,
							VC,										
	RW:						MZ,										
							TM,										
							IE,										
							CM,										
	2493																
	2003																
EΡ	1527																
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
							RO,										
	2003		27		A		2005	0712		BR 2	003-	1292	7		2	0030	718
	1671				A		2005	0921		CN 2	003-	8177	13		2	0030	718
CN	1325																
	5383						2005									0030	718
JΡ	2006	5046								JP 2	004-	5238	12		2	0030	718
CN	1010	7030	4		A		2007	1114		CN 2	007-	1010	4947		2	0030	718

US	20050148581	A1	20050707	US	2004-7026		20041208
US	7498343	B2	20090303				
IN	2005DN00220	A	20090313	IN	2005-DN220		20050120
ZA	2005000680	A	20060830	zA	2005-680		20050124
MX	2005001052	A	20050408	MX	2005-1052		20050125
NO	2005000476	A	20050127	NO	2005-476		20050127
HK	1083496	A1	20080215	HK	2006-103424		20060317
PRIORITY	APPLN. INFO.:			US	2002-398711P	P	20020725
				CN	2003-817713	A3	20030718
				WO	2003-EP50322	W	20030718
OFFIRE OF	DUDGE (C).	MADDAT	140.162716				

OTHER SOURCE(S):

MARPAT 140:163715

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

- The title compds. [I or II; R1 = H, halo, haloalkyl, CN, etc.; p = 0-4; R2 AB = H, OH, thio, alkoxy, etc.; R3 = alkyl, arvl, aralkyl, heteroarvl, heteroarylalkyl; q = 0-4; R4, R5 = H, alkyl, CH2Ph; or NR4R5 = pyrrolidinyl, imidazolyl, triazolyl, etc.; R6 = H, halo, haloalkyl, etc.; or two vicinal R6 may be taken together to form C:CC:C; r = 0-5; R7 = H, alkyl, aryl, heteroaryl; R8 = H, alkyl; R9 = oxo; or R8 and R9 together form NCH: CH] which are useful for the treatment of mycobacterial diseases, particularly those diseases caused by pathogenic mycobacteria such as Mycobacterium tuberculosis, M. bovis, M. avium and M. marinum, were prepared In particular, compds. are claimed in which, independently from each other, R1 = Br, p = 1, R2 = alkyloxy, R3 = (un)substituted naphthyl or Ph, q = 1, R4 and R5 each independently = H, Me or Et, R6 = H, r = 0-1 and R7 = H. E.g., a multi-step synthesis of III which showed MIC of 0.34 μq/mL and pIC50 of 8.5 against M. tuberculosis and M. smegmatis, resp., was given. Also claimed is a composition comprising a pharmaceutically acceptable carrier and, as active ingredient, a therapeutically effective amount of the claimed compds. I, the use of the claimed compds. or compns. for the manufacture of a medicament for the treatment of mycobacterial diseases and a process for preparing the claimed compds. 654653-59-5P
 - 1 694603-09-09
 RL: PRC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (preparation of quinolines as mycobacterial inhibitors)

RN 654653-59-5 CA

CN 3-Quinolineethanol, 6-bromo- α -[2-(dimethylamino)ethyl]-2-methoxy- α , β -diphenyl-, (α R, β S)-rel- (CA INDEX NAME)

Relative stereochemistry.

10/596,270

OS.CITING REF COUNT: 31 THERE ARE 31 CAPLUS RECORDS THAT CITE THIS

RECORD (34 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 66 OF 67 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 119:271031 CA

ORIGINAL REFERENCE NO.: 119:48500h,48501a

TITLE: Preparation of carbostyryls as TXA2 antagonists

INVENTOR(S): Yoshida, Seishi; Yamaji, Yoshiaki; Shinozaki, Katsuo;

Jin, Hiromasa; Sato, Hiroki PATENT ASSIGNEE(S): Zeria Pharm Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

Ι

CÔDEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05194404	A	19930803	JP 1992-29933	19920122
PRIORITY APPLN. INFO.:			JP 1992-29933	19920122
OTHER SOURCE(S):	MARPAT	119:271031		
GI				

AB Carbostyryls I (R1 = H, lower alkyl; R2, R3 = H, OH, lower alkyl; R2R3 may be 0; X = H, halo; Y = CH2CO2H, CH2CO2H; the dotted line may be double bond) or their pharmacol. acceptable salts, useful as antithrombotics, antiasthematics, anti-inflammatory agents, antihypertensives, antiarteriosclerotics, etc., are prepared Deprotection of Et [5-[2-(tert-butoxycarbonylamino)ethyl]carbostyryl-8-yl]oxyacetate with CF3CO2H in CH2C12 at 0° for 5 h and successive condensation with 4-chlorobenzenesulfonyl chloride in H2O-CH2C12 mixture at room temperature for 1 h

gave 71% Et [5-[2-(4-chlorobenzenesulfonylamino)ethyl]carbostyryl-8-y]oxyacetate, which was hydrolyzed with 5N NaOH in MeOH at room temperature for

1 h to afford 96% corresponding carboxylic acid (II). II inhibited blood platelet aggregation at pIC50 7.62, vs. 6.38, for 4-[2-(4-chlorobenzenesulfonylamino)ethyl]phenylacetic acid. Granules were manufactured from II 20, lactose 315, corn starch 125, crystalline cellulose 25 g,

```
and 200 mL 7.5% hydroxypropyl cellulose aqueous solution
     151161-99-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of, as TXA2 antagonist)
     151161-99-8 CA
RN
     Acetic acid, 2-[[5-[2-[[(4-chlorophenyl)sulfonyl]amino]-1-hydroxy-1-
     methylethyl - 1, 2-dihydro-2-oxo-8-quinolinyl | oxyl- (CA INDEX NAME)
HO2C-CH2-O
       HO- C- Me
          CH2
          NH
      0= s= 0
L8 ANSWER 67 OF 67 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                          76:94453 CA
ORIGINAL REFERENCE NO.: 76:15144h,15145a
TITLE:
                          Potential antimalarials. 6. 2-Phenyl-6- and
                          -8-quinolinemethanols and
                          8-phenyl-4-quinolinemethanols
AUTHOR(S):
                          Wommack, J. B., Jr.; Barbee, T. G., Jr.; Subbaswami,
                          K. N.; Pearson, D. E.
CORPORATE SOURCE:
                          Dep. Chem., Vanderbilt Univ., Nashville, TN, USA
SOURCE:
                          Journal of Medicinal Chemistry (1971), 14(12), 1218-20
                          CODEN: JMCMAR: ISSN: 0022-2623
DOCUMENT TYPE:
                          Journal
LANGUAGE:
                          English
   6-Bromo-4-(2-dibutylamino-1-hydroxyethyl)-8-phenylquinoline (I)
     [34332-13-3] (80-640 mg/kg) showed promising antimalarial activity against
     Plasmodium berghei. I was nonphototoxic at 50 mg/kg. A series of
     substituted 2-phenylquinolines had only low activity. To synthesize I, 5-bromo-2-aminobiphenyl-HCl, Me vinyl ketone, and As205 were refluxed in
     EtOH to yield 6-bromo-8-phenyllepidine, which was oxidized with SeO2 in
     dioxane at 90.deg. to 6-bromo-8-phenylquinoline-4-carboxaldehyde. This
     was converted with Me2S:CH2 to the 4-epoxyethyl compound, which reacted with
     Bu2NH to yield I.
    35871-06-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
RN
     35871-06-8 CA
```

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CN
     3-Quinolinemethanol, \alpha-[3-(diethylamino)propyl]-\alpha-methyl-,
     compd. with 2,4,6-trinitrophenol (1:2) (CA INDEX NAME)
     CM
           1
     CRN 47162-63-0
     CMF C18 H26 N2 O
             OH
                (CH<sub>2</sub>)<sub>3</sub>-NEt<sub>2</sub>
             Me
     CM
     CRN 88-89-1
     CMF C6 H3 N3 O7
OoN.
              NO<sub>2</sub>
              OH
        NO<sub>2</sub>
                                  THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
OS.CITING REF COUNT:
                          1
                                   (1 CITINGS)
=> d his
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     FILE 'REGISTRY' ENTERED AT 14:05:34 ON 30 JUL 2009
L1
                 STRUCTURE UPLOADED
L2
                 STRUCTURE UPLOADED
L3
                 STRUCTURE UPLOADED
L4
                 STRUCTURE UPLOADED
L5
                2 S L3 SAM
L6
               1 S L4 SAM
L7
             974 S L3 OR L4 FULL
     FILE 'CA' ENTERED AT 14:09:29 ON 30 JUL 2009
              67 S L7
L8
---Logging off of STN---
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Page 98

10/596,270

Executing the logoff script...

=> LOG Y

STN INTERNATIONAL LOGOFF AT 14:10:27 ON 30 JUL 2009